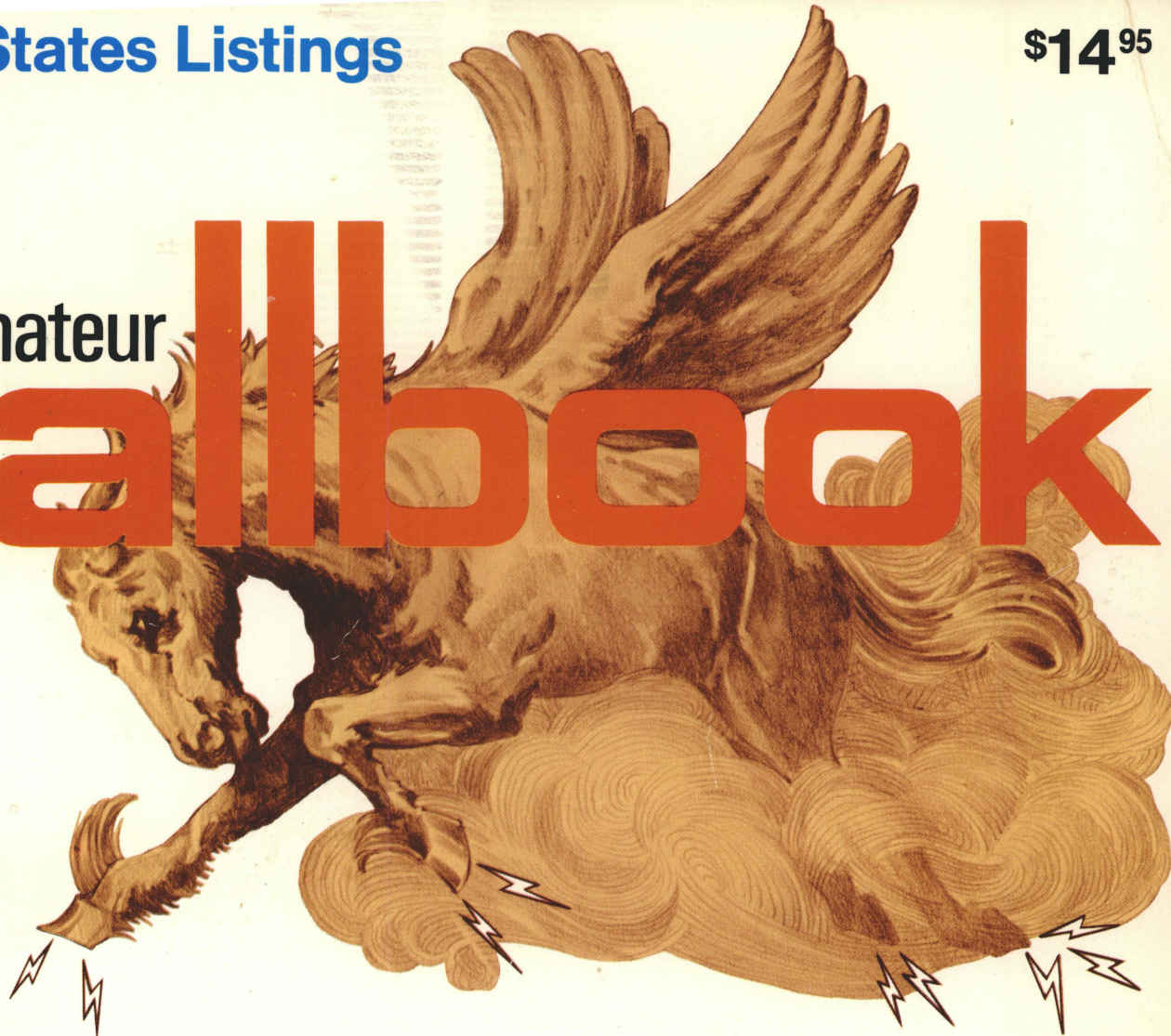


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\$14⁹⁵

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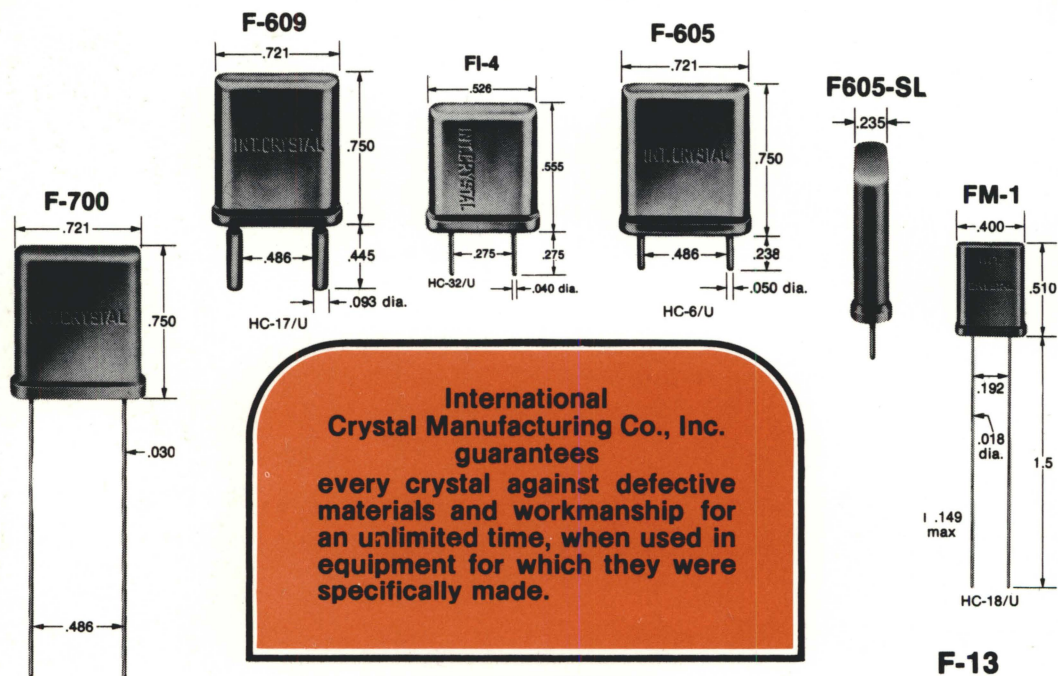
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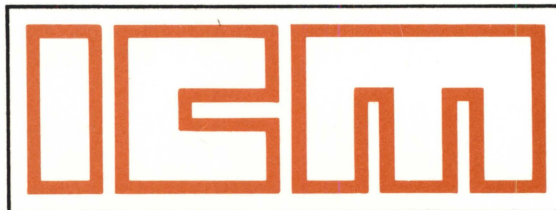
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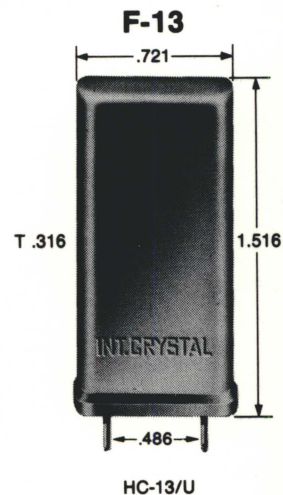
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radio amateur **callbook**

known the world over as the "CALLBOOK"

RADIO AMATEURS OF THE U. S. A.

VOLUME 56
NUMBER 1

K AND W CALLS

WINTER 1977-78

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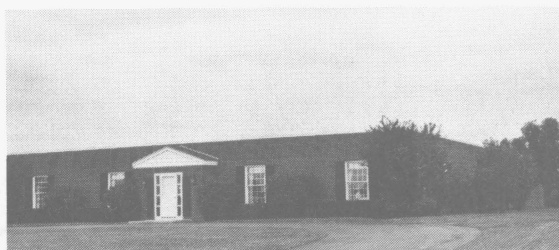
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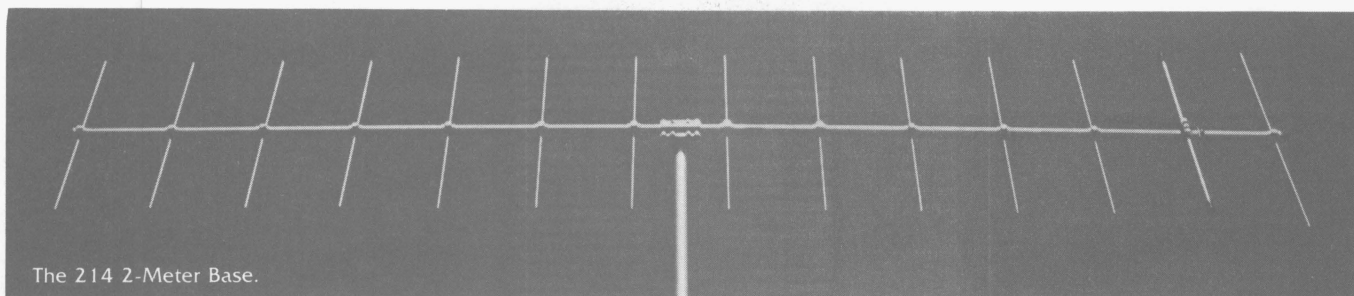
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A year around staff, through the use of electronic data processing equipment, evaluates and compiles the directory information received daily from all over the world. Extensive library and historical records are maintained to provide the most complete and accurate Callbook possible to produce.

The Callbook had its beginning back in 1920 when there were just a few radio amateurs. Today, Callbooks and Callbook products are in use in every country of the world.



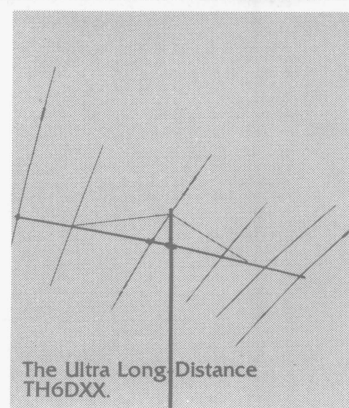
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PREFIXES—BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

AFGHANISTAN.....	(A-21).....YA	HAITI.....	(NA-8).....HH	QATAR.....	(A-21).....AX
AGALEGA IS.....	(AF-39).....3B6	HAWAII.....	(O-31).....KH6	REUNION IS.....	(AF-39).....FR7
ALAND IS.....	(AF-39).....OH#	HEARD IS.....	(AF-39).....VK#	REVILLA GIGEDO IS.....	(NA-6).....X6
ALASKA.....	(NA-1).....KL7	HONDURAS.....	(E-14).....6R	RHODESIA.....	(AF-38).....XZ
ALBANIA.....	(E-15).....ZA	HONG KONG.....	(A-24).....V56	RODRIGUEZ IS.....	(AF-39).....3E
ALGERIA.....	(AF-33).....7X	HOWLAND IS.....	(O-31).....KB6	ROMANIA.....	(E-20).....YO
AMSTERDAM & ST. PAUL IS.....	(AF-39).....FB8Z	HUNGARY.....	(E-15).....HA/HG	ROTA.....	(O-27).....KG6R
ANDAMAN & NICOBAR IS.....	(A-26).....VU7	ICELAND.....	(E-40).....TF	RWANDA.....	(AF-36).....9X
ANDORRA.....	(E-14).....C31	INDIA.....	(A-22).....VU2	SABAH.....	(O-28).....9M6
ANGUILLA.....	(AF-36).....D2A	INDONESIA.....	(O-28).....YU-YO	SABA IS.....	(NA-8).....PJ6,8
ANTARCTICA.....	(AF-36).....U1, VK#	IRAN.....	(A-21).....EP	ST. BRANDON IS.....	(AF-39).....3B7
ARGENTINA.....	(SA-13).....LU	IRAQ.....	(A-21).....YI	ST. EUSTATIUS.....	(NA-8).....PJ5,8
ARUBA.....	(SA-9).....PJ3,9	IRELAND.....	(E-14).....EI	SAINT HELENA IS.....	(AF-36).....ZD7
ASCENSION IS.....	(AF-36).....ZD8	ISCHIA.....	(E-15).....IC	SAINT MARTIN IS.....	(NA-8).....FS7
AUCKLAND & CAMPBELL IS.....	(O-32).....ZL	ISLE OF MAN.....	(E-14).....GD	ST. PETER & ST. PAULS ROCKS.....	(SA-11).....PY#
AUSTRALIA.....	(O-29 & 30).....VK	ISRAEL.....	(A-20).....4X, 4Z4	ST. PIERRE & MIQUELON IS.....	(NA-5).....EP8
AUSTRIA.....	(E-14).....OE	IVORY COAST.....	(AF-35).....TU2	SAIPAN.....	(O-27).....KG6S
AVES IS.....	(NA-8).....YU#	JAMAICA.....	(NA-8).....6Y5	SAMOA, AMERICAN.....	(O-32).....K56
AZORES IS.....	(E-14).....CT2	JAN MAYEN IS.....	(E-40).....JX	SAMOA, WESTERN.....	(O-32).....5W1
BAHAMA IS.....	(NA-8).....C6A	JAPAN.....	(A-25).....JA-JR	SAN ANDRES & PROVIDENCIA.....	(NA-7).....HK#
BAHRAIN IS.....	(A-21).....A9X	JAPAN, U.S. PERSONNEL IN.....	(A-25).....KA	SAN FELIX IS.....	(SA-12).....CE#X
BAJO NUEVO IS.....	(NA-8).....HK#	JARVIS IS.....	(O-31).....KP6	SAN MARINO.....	(E-15).....MI
BAKER IS.....	(O-31).....KB6	JOHNSTON IS.....	(O-31).....J	SARDINIA.....	(E-15).....9M8
BALEARIC IS.....	(E-14).....EA6	JORDAN.....	(A-20).....JY	SAUDI ARABIA.....	(A-21).....HZ, 7Z
BANGLADESH.....	(A-22).....5Z, 53	JUAN DE NOVA IS.....	(AF-39).....FR7	SAUDI ARABIA/IRAQ	NEUTRAL ZONE.....
BARBADOS IS.....	(NA-8).....BP6	JUAN FERNANDEZ IS.....	(SA-12).....CE#Z	SCOTLAND.....	(E-14).....GM
BELGIUM.....	(E-14).....ON	KAMARAN IS.....	(A-21).....70	SENEGAL REPUBLIC.....	(AF-35).....6W8
BELIZE.....	(NA-7).....VP1	KENYA.....	(AF-37).....524	SERRANA BK & RONCADOR CAY.....	(NA-7).....HK#
BENIN, PEOPLE'S REP OF.....	(AF-35).....TY	KERGUELEN IS.....	(AF-39).....F88X	SEYCHELLES IS.....	(AF-39).....579
BERMUDA IS.....	(NA-5).....VP9	KERMADEC IS.....	(O-32).....ZL	SICILY.....	(E-15).....IT
BHUTAN.....	(A-22).....A51	KOREA.....	(A-25).....HL, HL9	SIERRA LEONE.....	(AF-35).....9L1
BOLIVIA.....	(SA-10).....CP	KURE IS.....	(O-31).....KH6	SINGAPORE, REP OF.....	(A-28).....9V1
BONAIRE.....	(SA-9).....PJ4,9	KUWAIT.....	(A-21).....9K2	SINT MAARTEN.....	(NA-8).....PJ7,8
BOTSWANA.....	(AF-38).....A2C	LABRADOR.....	(NA-21).....VO2	SOLOMON IS.....	(O-28).....H4
BOUYET IS.....	(AF-38).....3Y	LACCADIVE IS.....	(A-22).....VU7	SOMALI REPUBLIC.....	(AF-37).....6D
BRAZIL.....	(O-31).....PP-PY	LAMPEDUSA IS.....	(AF-33).....IG9	SOUTH AFRICA, REP OF.....	(AF-38).....ZK, Z51, Z6
BRITISH PHOENIX IS.....	(O-31).....VR1	LAOS.....	(A-26).....XW8	SOUTH GEORGIA IS.....	(SA-13).....VP8
BRUNEI.....	(O-28).....VS5	LEBANON.....	(A-20).....OD5	SOUTH ORKNEY IS.....	(SA-13).....LU-2, VP8
BULGARIA.....	(E-20).....LZ	LEENARD IS.....	(A-20).....OD5	SOUTH SANDWICH IS.....	(SA-13).....LU-2, VP8
BURMA.....	(A-26).....XZ	LEONARD IS.....	(A-20).....OD5	S. SHETLAND IS.....	(SA-13).....CE9AN-AZ, LU-2, VP8
BURUNDI.....	(AF-36).....9U5	LIBERIA.....	(AF-35).....EL, 5L	SOUTHWEST AFRICA (NAMIBIA).....	(AF-38).....ZK3, Z53
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CAMEROON.....	(AF-36).....TJ	LIECHTENSTEIN.....	(O-31).....VR3	SOUTHERN RUSSIAN SOVIET FEDERATED	EUROPEAN RUSSIAN SOVIET FEDERATED
CANADA.....	(NA-7).....K25	LINE IS, NORTHERN.....	(O-31).....VR3	SOCIALIST REPUBLIC.....	(E-16).....U1, 2, 3, 4, 6
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CANARY IS.....	(AF-33).....EA8	LORD HOWE IS.....	(O-30).....VK2	ARMENIAN S.S.R.....	(A-21).....UG6
CANTON IS.....	(O-31).....KB6	LUXEMBOURG.....	(E-14).....LX	AZERBAIDZHAN S.S.R.....	(A-21).....UD6
CAPE VERDE, REP OF.....	(AF-35).....D4	MACAO.....	(A-24).....CR9	ESTONIAN S.S.R.....	(E-15).....URJ
CAPRI IS.....	(E-15).....IC	MADAGASCAR.....	(AF-35).....VK#	FRANZ JOSEF LAND.....	(E-40).....UA1
CAROLINE IS.....	(O-27).....KC6	MADEIRA IS.....	(AF-33).....CT3	GEORGIAN S.S.R.....	(A-21).....UF6
CAYMAN IS.....	(NA-8).....ZF1	MALAGASY REPUBLIC.....	(AF-39).....5R8	KALININGRADSK.....	(E-15).....UA2
CENTRAL AFRICAN REPUBLIC.....	(AF-36).....TLB	MALAWI.....	(AF-37).....707	KARELO-FINNISH S.S.R.....	(E-16).....UN1
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CHILE.....	(SA-12).....CE	MALPELO IS.....	(SA-9).....HK#	UZBEK S.S.R.....	(A-17).....UA8
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CRETE, GREECE.....	(E-20).....SV	MINAMI-TORI-SHIMA IS.....	(O-27).....JD1	SYRIA.....	(A-20).....BK
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ECUADOR.....	(SA-10).....HC	NEW HEBRIDES.....	(O-32).....V01	TRINIDAD & TOBAGO IS.....	(SA-9).....9Y4
EGYPT.....	(AF-34).....SU	NEW ZEALAND.....	(O-32).....ZL	TRISTAN DE CUNHA.....	(AF-38).....ZD9
EL SALVADOR.....	(NA-7).....YS	NICARAGUA.....	(NA-7).....YN	TROMELIN IS.....	(AF-39).....FR7
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FALKLAND IS.....	(SA-13).....VP8	NORTHERN IRELAND.....	(E-14).....GI	TUVALU IS.....	(O-31).....VR8
FERNANDO DE NORONHA.....	(SA-11).....PY#	NORWAY.....	(E-14).....LA-LJ	UGANDA.....	(AF-37).....5X5
FIJI IS.....	(O-32).....302	OGASAWARA IS.....	(A-27).....JD1	UNITED ARAB EMIRATES.....	(A-21).....6X
FINLAND.....	(E-15).....OH	OKINAWA (RYUKYU IS).....	(A-25).....JR6	UNITED NATIONS.....	(E-14).....4U
FRANCE.....	(E-14).....F	OKINO-TORI-SHIMA.....	(O-27).....7J1	UNITED STATES OF AMERICA.....	(NA-3, 4, 5).....N4, K
FRENCH POLYNESIA.....	(O-31 & 32).....F08	OMAN, SULTANATE OF.....	(A-21).....A4X	URUGUAY.....	(SA-13).....CX
GABON REPUBLIC.....	(AF-36).....TR8	PAKISTAN.....	(A-21).....AP	VATICAN CITY.....	(E-15).....HV
GALAPAGOS IS.....	(SA-10).....HC8	PALESTINE.....	(O-31).....KP6	VENEZUELA.....	(SA-9).....YV
GAMBIA.....	(AF-35).....C5A	PANAMA.....	(NA-7).....HP	VICTORIA.....	(A-26).....XV5
GERMANY, FED. REP. (WEST).....	(E-14).....DA-DL	PANTELLERIA IS.....	(AF-33).....IH	VIRGIN IS.....	(NA-8).....RV4
GERMAN DEM. REP. EAST.....	(E-14).....DM	PAPUA NEW GUINEA.....	(O-28).....P29	VOLTAIC REPUBLIC.....	(AF-35).....XT2
GHANA.....	(AF-35).....9G1	PARAGUAY.....	(SA-11).....ZP	WAKE IS.....	(O-31).....K66
GIBRALTAR.....	(E-14).....2B2	PERU.....	(SA-10).....DU	WALES.....	(E-14).....GW
GILBERT & OCEAN IS.....	(O-31).....VR1	PHILIPPINES.....	(O-31).....K66	WALLIS & FUTUNA IS.....	(O-32).....F88
GLORIOSO IS.....	(AF-39).....FR7	PHOENIX IS.....	(O-31).....K66	WILLIS IS.....	(O-30).....VK9Z
GOUGH IS.....	(E-15).....9H4	PITCAIRN IS.....	(O-32).....VR6	WINNEDOW IS.....	(NA-8).....VP20
GOZO (MALTA).....	(SA-13).....VP8, LU-Z	POLAND.....	(O-32).....SP	DOMINICA.....	(NA-8).....VP20
GREECE.....	(E-20).....5V	PORTUGAL.....	(E-14).....CT1	ST. LUCIA.....	(NA-8).....VP2L
GREENLAND.....	(NA-40).....OX	PRINCE EDWARD & MARION IS.....	(AF-38).....Z52	ST. VINCENT & DEPENDENCIES.....	(NA-8).....VP2S
GUADALOUPE.....	(NA-8).....F67	PRINCEIP & SAO TOME IS.....	(AF-36).....59	YEMEN.....	(A-21).....4U
GUAM IS.....	(O-27).....K66	PUERTO RICO.....	(NA-8).....KP4	YUGOSLAVIA.....	(E-15).....YU
GUANTANAMO BAY.....	(NA-8).....K66			ZAIRE, REPUBLIC OF.....	(AF-36).....905
GUATEMALA.....	(NA-7).....TG			ZAMBIA.....	(AF-36).....91, 9J
GUERNSEY, BAILIWICK OF.....	(E-14).....GU			ZANZIBAR (TANZANIA).....	(AF-37).....5H1
GUIANA, FRENCH.....	(SA-9).....FY7				
GUINEA-BISSAU.....	(AF-35).....CR3				
GUINEA, EQUATORIAL.....	(AF-36).....3C				
GUINEA, REPUBLIC OF.....	(AF-35).....3X				
GUYANA.....	(SA-9).....8K				

*thoughts to consider
about the new*

FM SYSTEM SCHOOL



DRAKE UV-3

UHF-VHF FM SYSTEM



Optional
Drake 1525EM
Encoding Mike

only \$995 for 3-band UV-3

*How does the cost of the Drake system really compare to
alternative methods of getting on 144-220-440 MHz fm?*

A First of all, there is *no* direct comparison possible, because the Drake UV-3 is the only rig in the world offering 144-220-440 MHz fm in a single box — and it is fully synthesized on each band.

B The nearest comparison would be to add the suggested list prices of 3 separate units of the most popular fm rigs presently available. It would work out approximately as follows:

2 Meters (Synthesized to 5 kHz)	\$ 400.00
220 MHz (12 channels, crystal)	230.00
440 MHz (12 channels, crystal)	300.00
Crystals (Assuming 20 per radio)	200.00
TOTAL	\$1130.00

But wait— even at that price you'd be missing features included in the UV-3:

1. Full synthesis on all three bands
2. Extra diode-programmable fixed channels on each band
3. Priority scan feature on each band
4. Remote, trunk mount operation (optional)
5. Everything in a *single* box!

For your homework, then, ponder the following — at a suggested amateur net of \$995.00, the Drake UV-3 (144-220-440) is, to say the least, an incredible value.

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```

AP.....PAKISTAN
A2C.....BOTSWANA
A35.....TONGA
A4X.....SULTANATE OF OMAN
A51.....BHUTAN
A6X.....UNITED ARAB EMIRATES
A7X.....QATAR
A9X.....BAHRAIN

```

BV.....TAIWAN
BY.....PEOPLES REPUBLIC OF CHINA

```

CE.....CHILE
CE9AA-AM.....CHILEAN ANTARCTICA
                TIERRA DE O'HIGGINS,PALMER PENINSULA,
                GRAHAM LAND
CE9AN-AZ.....SOUTH SHETLAND IS.
CE9A.....EASTER IS.
CE9X.....SAN FELIX IS.
CE9Z.....JUAN FERNANDEZ IS.

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CM.....CUBA
CN.....MOROCCO
CO.....CUBA
CP.....BOLIVIA
CR3.....GUINEA BISSAU
CR9.....MACAO
CTL.....PORTUGAL
CT2.....AZORES IS
CT3.....MADEIRA IS
CX.....URUGUAY
C31.....REPUBLIC OF
C31.....ANDORRA
C5A.....GAMBIA
C6A.....BAHAMA IS
C9M.....MOZAMBIQUE

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DA-DL.....FED REP OF WEST GERMANY
DM.....EAST GERMAN DEMOCRATIC REP.
DU.....PHILIPPINES
DZA.....ANGOLA
D4.....REP OF CAPE VERDE
D6.....STATE OF COMORO

```
EA.....SPAIN
EA6.....BALEARIC IS.
EA8.....CANARY IS.
EA9.....SPANISH SAHARA, CEUTA Y MELILLA
EI.....IRELAND
EL,SL.....LIBERIA
EP.....IRAN
ET3.....ETHIOPIA
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F.....FRANCE
F88.....CROZET IS.
F87.....KERGUELEN IS.
F.....ANTARCTICA
F88Z.....AMSTERDAM & ST.PAUL IS.
FC.....CORSIKA
FG7.....GUADELOUPE
FH8.....MAYOTTE
FK8.....NEW CALEDONIA
FM7.....MARTINIQUE
FO8.....FRENCH POLYNESIA,CLIPPERTON IS.
FP8.....ST.PIERRE & MIQUELON IS.
FK7.....GLORIOSO,JUAN DE NOVA REUNION.
F.....TROMELIN IS.
F57.....ST. MARTIN IS.
F8.....MALLIS & FUTUNA IS.
FY7.....FRENCH GUIANA

```

```
Ge.....ENGLAND
GD.....ISLE OF MAN
GI.....NORTHERN IRELAND
GJ.....JERSEY
GM.....SCOTLAND
GU.....BAILIWICK OF GUERNSEY
GW.....WALES
```

HA,HG	HUNGARY
HB	SWITZERLAND
HB	LIECHTENSTEIN
HC	ECUADOR

```

HG8.....GALAPAGOS IS.....
HG.....HUNGARY
HI.....HAITI
HI.....HONDURAS
HK.....COLOMBIA
HK.....BAJO NUEVO, MALPELO, SAN ANDRES &
      .....PROVIDENCIA IS.....
HK.....SERRANA BANK & RONCADOR CAY
HM.....KOREA
HP.....PANAMA
HR.....HONDURAS
HS.....SWAN IS.....
HS.....SRI LANKA
HV.....VATICAN CITY
HZ77.....SAUDI ARABIA
HZ.....SOLOMON IS.....

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I, IW.....ITALY
IA.....TUSCAN ARCHIPELAGO
IC.....CAPRI & ISCHIA IS.
IG9.....LAMPEDUSA IS.
IH.....PANTELLERIA IS.
IM.....MADDALENA IS.
IS.....SARDINIA
IT.....SICILY

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JA,JE-JJ,JR.....JAPAN
JD1.....OGASAWARA,MINAMI-TORI-SHIMA IS.
JR6.....OKINAWA (RYUKYU IS.)
JT1.....MONGOLIA
JW.....SVALBARD IS.
JX.....JAN MAYEN IS.
JY.....JORDAN
JZ.....REP OF DJIBOUTI
J3.....GRENADA & DEPENDENCIES

```

K.....UNITED STATES OF AMERICA
KA.....U.S. PERSONNEL IN JAPAN
KB6.....BAKER, CANTON, ENDERBURY,
 HOWLAND & PHOENIX IS.
KC4.....NAVASSA IS.

```

KC4AA-KC4US.....ANTARCTICA
KC6.....CAROLINE IS.
KG4.....GUANTANAMO BAY
KG6.....MARTANA IS.
KG6.....GUAM
KG6R.....ROTA
KG6S.....SAIPAN
KH6.....HAWAII & KURE IS.
KM6.....JOHNSTON
KL7.....ALASKA
KM6.....MIDWAY IS.
KP4.....PUERTO RICO
KP6.....JARVIS & PALMYRA IS.
KS6.....AMERICAN SAMOA
KV6.....VIRGIN IS.
KK6.....MARSHALL IS.
KZ5.....CANAL ZONE

```

LA-LJ.....NORWAY
LU.....ARGENTINA
LU-Z.....ANTARCTICA
LX.....LUXEMBOURG
LZ.....BULGARIA

M1.....SAN MARINO

N.....UNITED STATES OF AMERICA

```

0A.....PERU
0D5.....LEBANON
0E.....AUSTRALIA
0H.....FINLAND
    Oid.....ALAND IS.
    Oid, OidM.....MARKET REEF
0K,OL.....CZECHOSLOVAKIA
0N.....BELGIUM
0R.....ANTARCTICA
0X.....GREENLAND
0Y.....FAEROES IS.
0Z.....DENMARK

```

PA-P1	.....	NETHERLANDS
PJ	.....	NETHERLANDS ANTILLES
PJ2/9	.....	CURACAO
PJ3/9	.....	ARUBA
PJ4/9	.....	GUAYANA FRANCESA
PJ5/9	.....	ST. EUSTACHIUS
PJ6/8	.....	SABA IS.
PJ7/8	.....	SINT MAARTEN
PP-PY	.....	BRAZIL
PY0	.....	FERNANDO DE NORONHA IS.
PY9	.....	ST. PETER & ST. PAUL'S ROCKS
PY9	.....	TRINIDADE & MARTIN VAS
PZ	.....	GUINEA-BISSAU
PZ5	.....	PAPUA NEW GUINEA

```

SJ-SM.....SWEDEN
SP.....POLAND
SU.....SUDAN
SU.....EGYPT
SV.....GREECE
SV5.....+DDECANESE IS.
S2+S3.....BANGLADESH
S7.....SEYHELLES IS.
S8.....TRANSKEI
S9.....SAO TOME & PRINCIPE IS.

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```

TA,TC.....TURKEY
TF.....ICELAND
TG.....GUATEMALA
TI.....COSTA RICA
TI9.....COCOS IS
TJ.....CAMEROON
TLB.....CENTRAL AFRICAN REPUBLIC
TNB.....REPUBLIC OF CONGO
TY.....BURUNDI
TB.....REPUBLIC OF CHAD
TU2.....IVORY COAST
TY.....PEOPLES REPUBLIC OF BENIN
TZ.....MALI REPUBLIC

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UAL2,3,9		EUROPEAN RUSSIAN	S-S-R
UAS		SOVIET FEDERATED SOCIALIST REPUBLIC	S-S-R
UAS9	.....	ASIATIC RUSSIAN	S-S-R
UA1	.....	FRANZ JOSEF LA	S-S-R
UA2	.....	KALININGRADSK	S-S-R
UB5	.....	UKRAINIAN	S-S-R
UC2	.....	WHITE RUSSIAN	S-S-R
UC5	.....	AZERBAIDJAN	S-S-R
UC6	.....	GEORGIAN	S-S-R
UG6	.....	ARMENIAN	S-S-R
UH8	.....	TURKMEN	S-S-R
UI8	.....	UZBEK	S-S-R
UJ8	.....	TADZHIK	S-S-R
UL7	.....	KAZAKH	S-S-R
UM8	.....	KIRGHIZ	S-S-R
UN1	.....	KARELO-FINNISH	S-S-R
UP5	.....	WOLFINIAN	S-S-R
UP2	.....	LITHUANIAN	S-S-R
UR2	.....	LATVIAN	S-S-R
UR2	.....	ESTONIAN	S-S-R

```

VE.....CANADA.....
VK.....AUSTRALIA.....
VK2.....LORD HOWE IS.....
VK9N.....NORFOLK IS.....
VK9X.....CHRISTMAS IS.....
VK9Y.....COCOS IS.....
VKZ.....TULAGI.....
VKØ.....ANTARCTICA.....
VØ1.....NEWFOUNDLAND.....
VØ2.....LABRADOR.....
VØ1.....BELIZE.....
VP2.....LEeward.....NDward.....
VP20.....DOMINICA.....

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VP2E.....ANGUILLA
VP2K.....ST KITTS, NEVIS
VP2L.....ST LUCIA
VP2M.....MONTSERRAT
VP2S.....ST VINCENT & DEPENDENCIES
VP2V.....BRITISH VIRGIN IS.

```

VP5.....TURKS & CAICOS IS.
VP8.....FALKLAND,S,GEORGIA,S,ORKNEY,
      S,SANDWICH,S,SHETLAND IS,GRAHAM LAND
VP9.....BERMUDA IS.
VQ9.....CHAGOS
VR1.....BRITISH PHOENIX,GILBERT & OCEAN IS.
VR3.....NORTHERN LINE IS.
VR6.....PITCAIRN IS.
VR7.....CENTRAL & SOUTHERN LINE IS.
VR8.....TUVALU IS.
VS5.....BRUNY
VS6.....HONG KONG
VUZ.....INDIA
VU7.....ANDAMAN & NICOBAR IS.
VU7.....LACCADIVE IS.

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W.....UNITED STATES OF AMERICA

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XE,XF.....MEXICO
  XF4.....REVILLA GIGEDO IS.
XT2.....VOLTIC REPUBLIC
XU.....CAMBODIA/KHMER REPUBLIC
XV5.....VIETNAM
XN8.....LAOS
X7.....BURMA

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YA.....AFGHANISTAN
YB-YD.....INDONESIA,TIMOR IS
Y.....IRAQ
YJ.....NEW HEBRIDES
YK.....SYRIA
YN.....NICARAGUA
YD.....ROMANIA
YU.....EL SALVADOR
YS.....YUGOSLAVIA
YV.....VENEZUELA
YVD.....AVES IS

```

ZA	.....	ALBANIA
ZB	.....	GBRALTAR
ZD	.....	SAINT HELENA IS.
ZD8	.....	ASCENSION IS.
ZD9	.....	TRISTAN DA CUNHA & GOUGH IS.
ZE	.....	RHODESIA
ZF1	.....	CAYMAN IS.
ZK1	.....	COOK & MANIHATI IS.
ZL	.....	NEW ZEALAND & AUCLAND, CAMPBELL, CHATHAM, KERMADEC IS.
ZL5	.....	ANTARCTICA
ZM7	.....	TOKELAU IS.
ZP	.....	PARAGUAY
ZR-ZS1+2+4+5+6	.....	REPUBLIC OF SOUTH AFRICA
ZS1ANT	.....	ANTARCTIC
ZR-ZS3	.....	SOUTHWEST AFRICA (NAMIBIA)

```

3A.....MONACO
3B6.....AGALGA IS.
3B7.....ST. BRANDON IS.
3B8.....MAURITIUS IS.
3B9.....RODRIGUEZ IS.
3C.....EQUATORIAL GUINEA
3D2.....FIJI IS.
3D6.....SWAZILAND
3V8.....TUNISIA
3X.....REPUBLIC OF GUINEA
3Y.....BOUVET IS.

```

4K1.....ANTARCTICA
457.....SRI LANKA
4U.....UNITED NATIONS, GENEVA
4W.....YEMEN
4X4, 474.....ISRAEL

```

5A.....LIBYAN ARAB REPUBLIC
5B4,ZC4.....CYPRUS
5H.....ANZIBAR,TANZANIA
5H3.....TANZANIA
5L.....LIBERIA
5N2.....NIGERIA
5R8.....MALAGASY REPUBLIC
5T5.....MAURITANIA
5U7.....Togo
5V.....TOGO
5W.....WESTERN SAMOA
5X5.....UGANDA
5Z4.....KENYA

```

60.....SOMALI REPUBLIC
6W8.....SENEGAL REPUBLIC
6Y5.....JAMAICA

```

7J.....OKINO-TORI-SHIM.
70.....SOUTH YEMEN & KAMARAN I
7PB.....LESOTHO
7Q7.....MALAW
7x.....ALGERI
7Z.....SAUDI ARABI

```

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8J.....ANTARCTIC
8P6.....BARBADOS IS
8Q6.....MALDIVE IS
8R.....GUYAN
8Z4.....SAUDI ARABIA/IRAQ NEUTRAL ZON

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9G1.....GHANA
9H1.....MALTA
9H15.....GOZ.....MALTA
9I9J.....ZAMBIA
9K2.....KUWAIT
9L1.....SIERRA LEON
9M2.....WEST MALAYSIA
9M6.....SABA
9M8.....SARAWA
9N1.....NEPA
9Q5.....REPUBLIC OF ZA
9U5.....BURUNDI
9V1.....REPUBLIC OF SINGAPORE
9X.....RHAND
9Y4.....TRINIDAD & TOBAGO IS

```


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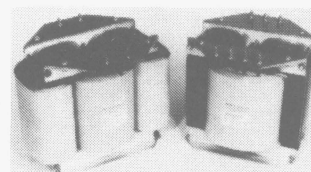
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AZ.....BOTSWANA
A3.....TONGA IS.
A4X.....JHONAN
A5.....BHUTAN
A6X.....UNITED ARAB EMIRATES
A7X.....QATAR
A9X.....BAHRAIN
AP.....PAKISTAN
BV.....FORMOSA
BY.....CHINA
C2.....REP. OF NAURU
C3.....ANDORRA
C5.....THE GAMBIA
C6.....BAHAMA IS.
C9.....MOZAMBIQUE
CE.....CHILE
CE9AA-AM, FBBY, KC4, LA, LU-Z, OR4, UAI, UK1,
VK0, VPB, ZL5, ZS1, 3Y, 4K, 8J.....ANTARCTICA
CE9AN-AZ (SEE VP8)
CE9A.....EASTER IS.
CE9X.....SAN FELIX
CE9Z.....JUAN FERNANDEZ
CM, CO.....CUBA
CN.....MOROCCO
CP.....BOLIVIA
CR3.....GUINE BISSAU
CR5.....PRINCEPE, SAO THOME
CR9.....MACAO
CT.....PORTUGAL
CT2.....AZORES
CT3.....MADEIRA IS.
CX.....URUGUAY
DA, DJ, DK, DL.....FEDERAL REPUBLIC OF GERMANY
DM, DT.....GERMAN DEMOCRATIC REPUBLIC
DU.....PHILIPPINE IS.
D2, D3.....ANGOLA
D4.....CAPE VERDE IS.
D6.....COMOROS
EA.....SPAIN
EA6.....BALARIC IS.
EA8.....CANARY IS.
EA9.....RIO DE ORO
EA9.....CEUTA AND MELILLA
EL.....REPUBLIC OF IRELAND
EL.....LIBERIA
EP.....IRAN
ET.....ETHIOPIA
F.....FRANCE
FB8M.....CROZET
FB8X.....KERGUELEN IS.
FB8Y (SEE CE9AA-AM)
FB8Z.....AMSTERDAM & ST. PAUL IS.
FC.....CORSICA
FG.....GUADELOUPE
FH.....COMORO IS.
FK.....NEW CALEDONIA
FL.....AFARS & ISSAS TERR.
FM.....MARTINIQUE
FO.....CLIPPERTON IS.
FD.....FR POLYNESIA
FP.....ST. PIERRE & MIQUELON
FR.....GLORIOSO IS.
FR.....JUAN DE NOVA-EUROPA
FR.....REUNION
FR.....TROMELIN
FS.....SAINT MARTIN
FW.....MALLIS & FUTUNA IS.
FY.....FRENCH GUIANA
G.....ENGLAND
GC, GU.....GUERNSEY & DEPENDENCIES
GC, GJ.....JERSEY
GD.....ISLE OF MAN
GT.....NORTHERN IRELAND
GM.....SCOTLAND
GN.....MALES
HA.....HUNGARY
HB.....SWITZERLAND
HB.....LIECHTENSTEIN
HC.....ECUADOR
HC8.....GALAPAGOS IS.
HH.....HAITI
HT.....DOMINICAN REPUBLIC
HK.....COLOMBIA
HK0.....BAJO NUEVO
HK0.....MALPELO IS.
HK0.....SAN ANDRES & PROVIDENCIA
HK0 (SEE KS4)
HL, HM.....KOREA
HP.....PANAMA
HR.....HONDURAS
HS.....THAILAND
HV.....VATICAN
HZ, TZ.....SAUDI ARABIA
I, IT.....ITALY
IS.....SARONIA
JA, JE, JG, JH, JR, KA.....JAPAN
JD, KAL.....OGASAWARA
JD1.....OKINO TORI-SHIMA
JD, KAL.....MINAMI TORISHIMA
JT.....MONGOLIA
JW.....SVALBARD
JX.....JAN MAYEN
JY.....JORDAN
K, W, N.....UNITED STATES OF AMERICA
KA (SEE JD)
KB.....BAKER, HOWLAND & AMERICAN PHOENIX IS.
KC4 (SEE CE9AA-AM)
KC4.....NAVASSA IS.
KC6.....EASTERN CAROLINE IS.
KC6.....WESTERN CAROLINE IS.
KG4.....GUANTANAMO BAY
KG6.....GUAM
KG6R, S, T.....MARIANA IS.
KH.....HAWAIIAN IS.
KH.....KURE IS.

KJ.....JOHNSTON IS.
KL.....ALASKA
KM.....MIDWAY IS.
KP4.....PUERTO RICO
KP6.....KINGMAN REEF
KS4, HKP.....SERRANA BANK & RONCADOR CAY
KS6.....AMERICAN SAMOA
KV.....VIRGIN IS.
KW.....WAKE IS.
KX.....MARSHALL IS.
KZ.....CANAL ZONE
LA, LB, LF, LG, LJ.....NORWAY
LA (SEE CE9AA-AM)
LU.....ARGENTINA
LU-Z (SEE CE9AA-AM, VP8)
LX.....LUXEMBOURG
LZ.....BULGARIA
M1 (SEE 9A)
OA.....PERU
OD.....LEBANON
OE.....AUSTRIA
OH.....FINLAND
OHJ.....ALAND IS.
OJ.....MARKET
OK.....CZECHOSLOVAKIA
ON (SEE CE9AA-AM)
OR4 (SEE CE9AA-AM)
OX, XP.....GREENLAND
OY.....FAROE IS.
OZ.....DENMARK
P2.....PAPUA NEW GUINEA
PA, PD, PE, PI.....NETHERLANDS
PJ.....NETHERLAND ANTILLES
PJ.....ST. MAARTEN, SABA & ST. EUSTATIUS
PY.....BRAZIL
PY6.....FERNANDO DE NORONHA
PY6.....ST. PETER & ST. PAUL'S ROCKS
PY6.....TRINIDADE & MARTIN VAZ IS.
PZ.....SURINAM
S2.....BANGLADESH
S7.....SEYCHELLES
SK, SL, SM.....SWEDEN
SP.....POLAND
ST.....SUDAN
SU.....EGYPT
SV.....CRETE
SV.....DOODEANESE
SV.....GREECE
SV.....MOUNT ATHOS
TA.....TURKEY
TF.....ICELAND
TG.....GUATEMALA
TI.....COSTA RICA
TI9.....COCOS IS.
TJ.....CAMEROUN
TL.....CENTRAL AFRICAN REP.
TN.....CONGO REP.
TR.....GABON REP.
TT.....CHAD REP.
TU.....IVORY COAST
TY.....DAHOMEY REP.
TZ.....MALI REP.
UA, UK1, 3, 4, 6; UV; UW1-6; UN1
.....EUROPEAN RUSSIAN S.F.S.R.
UAI, UK1.....FRANZ JOSEF LAND
UAI, UK1 (SEE CE9AA-AM)
UA2, UK2F.....KALININGRADSK
UA, UK, UV, UW9, O.....ASIATIC R.S.F.S.R.
UB, UK, UT, UY5.....UKRAINE
UC2, UK2A/C, I/L/O/S/W.....WHITE R.S.S.R.
UD6, UK6C/D/K.....AZERBAI JAN
UF6, UK6F/O/Q/V.....GEORGIA
UG6, UK6G.....ARMENIA
UH8, UK8H.....TURKOMAN
UJ8, UK8J/R.....UZBEK
UL7, UK7.....TAOZHIK
UM8, UK8M, N.....KAZAKH
UO5, UK5O.....KIRGHIZ
UP2, UK2B/P.....MOLDAVIA
UQ2, UK2Q/Q.....LITHUANIA
UR2, UK2R/T.....LATVIA
VE, VO.....ESTONIA
VE1, VO.....CANADA
VE1.....SABLE IS.
VK.....ST. PAUL IS.
VK.....AUSTRALIA
VK.....LORD HOWE IS.
VK9.....WILLIS IS.
VK9.....CHRISTMAS IS.
VK9.....COCOS IS.
VK9.....MELLISH REEF
VK9.....NORFOLK IS.
VK0 (SEE CE9AA-AM)
VK0.....HEARD IS.
VK0.....MACQUARIE IS.
VO (SEE VE)
VP1.....BELIZE
VP2E.....ANGUILLA
VP2A.....ANTIGUA, BARBUDA
VP2V.....BRITISH VIRGIN IS.
VP2D.....DOMINICA
VP2G.....GRENADA & DEPENDENCIES
VP2M.....MONTserrat
VP2K.....ST. KITTS, NEVIS
VP2L.....ST. LUCIA
VP2S.....ST. VINCENT & DEPENDENCIES
VP5.....TURKS & CAICOS IS.
VP8 (SEE CE9AA-AM)
VP8.....FALKLAND IS.
VP8, LU-Z.....SO. GEORGIA IS.
VP8, LU-Z.....SO. ORKNEY IS.
VP8, LU-Z.....SO. SANDWICH IS.
VP8, LU-Z, CE9AN-AZ.....SO. SHETLAND IS.
VP9.....BERMUDA
V09.....CHAGOS IS.

VR1.....BRITISH PHOENIX IS.
VR1.....GILBERT & OCEAN IS.
VR3, 7.....LINE IS.
VR4.....SOLOMON IS.
VR6.....PITCAIRN IS.
VR7 (SEE VR3)
VR8.....TUVALU
VS5.....BRUNEI
VS6.....HONG KONG
VS9 (SEE 8Q)
VS9K.....KAMARAN IS.
VU.....INDIA
VU7.....ANDAMAN & NICOBAR IS.
VU7.....LACCADIVE IS.
W (SEE K)
XE.....MEXICO
XF4.....REVILLA GIGEDO
XP (SEE UX)
XT.....VOLTAIC REP.
XU.....KHMER REP.
XV.....VIETNAM
XW.....LAOS
XZ.....BURMA
YA.....AFGHANISTAN
YB, YC.....INDONESIA
YI.....IRAQ
YJ.....NEW HEBRIDES
YK.....SYRIA
YN.....NICARAGUA
YO.....RUMANTIA
YS.....SALVADOR
YU.....YUGOSLAVIA
YV.....VENEZUELA
YV.....AVES IS.
ZA.....ALBANTIA
ZB.....GIBRALTAR
ZC (SEE 5B)
ZD7.....ST. HELENA
ZD8.....ASCENSION IS.
ZD9.....TRISTAN DA CUNHA & GOUGH IS.
ZE.....RHODESIA
ZF.....CAYMAN IS.
ZK1.....COOK IS.
ZK1.....MANITIKI IS.
ZK2.....NIUE
ZL.....AUCKLAND IS. & CAMPBELL IS.
ZL.....CHATHAM IS.
ZL.....KERMADEC IS.
ZL.....NEW ZEALAND
ZL5 (SEE CE9AA-AM)
ZM.....TOKELAU
ZP.....PARAGUAY
ZS1, 2, 4, 5, 6.....SOUTH AFRICA
ZS1 (SEE CE9AA-AM)
ZS2.....PRINCE EDWARD & MARION IS.
ZS3.....NAMIBIA) SOUTHWEST AFRICA
IS.....SPRATLY IS.
3A.....MONACO
3B6, 7.....AGALEGA & ST. BRANDON
3B8.....MAURITIUS
3B9.....RODRIGUEZ IS.
3C.....EQUATORIAL GUINEA
3C.....ANNONBO
3D2.....FIJI IS.
3D6.....SWAZILAND
3V.....TUNISIA
3X.....REP. OF GUINEA
3Y.....BOUVET
3Y (SEE CE9AA-AM)
4K (SEE CE9AA-AM)
4S.....SRI LANKA
4U.....I-TU. GENEVA
4W.....YEMEN
4X, 4Z.....ISRAEL
5A.....LIBYA
5B, ZC.....CYPRUS
5H.....TANZANIA
5N.....NIGERIA
5R.....MALAGASY REP.
5T.....MAURITANIA
5U.....NIGER REP.
5V.....TOGO REP.
5W.....WESTERN SAMOA
5X.....UGANDA
5Z.....KENYA
6D.....SOMALI REP.
6W.....SENEGAL REP.
6Y.....JAMAICA
7D.....SOUTH YEMEN
7P.....LESOTHO
7Q.....MALAWI
7X.....ALGERIA
7Z (SEE HZ)
8J (SEE CE9AA-AM)
8P.....BARBADOS
8Q, VS9.....MALDIVES IS.
8R.....GUYANA
8Z4.....SAUDI ARABIA/IRAQ NEUTRAL ZONE
9A, (M1).....SAN MARINO
9G.....GHANA
9H.....MALTA
9J (SEE CE9AA-AM)
9K.....ZAMBIA
9K.....KUWAIT
9L.....SIERRA LEONE
9M2.....WEST MALAYSIA
9M6, 8.....EAST MALAYSIA
9N.....NEPAL
9Q.....REP. OF ZAIRE
9U.....BURUNDI
9V.....SINGAPORE
9X.....RWANDA
9Y.....TRINIDAD & TOBAGO
ABU AIL; JABAL AT TAIR
GEYSER REEF

DX OPERATING CODE

(For W/VE Amateurs)

Some amateur DXers have caused considerable confusion and QRM in their efforts to work DX stations. The points below, if observed by all W/VE amateurs, will help make DX more enjoyable for all.

1. Call DX only after he calls CQ, QRZ? or signs SK, or 'phone equivalents thereof. Make your calls short.
2. Do not call a DX station:
 - a. On the frequency of the station he is calling until you are sure the QSO is over (SK).
 - b. Because you hear someone else calling him.
 - c. When he signs KN, AR or CL..
 - d. Exactly on his frequency.
 - e. After he calls a directional CQ, unless of course you are in the right direction or area.
3. Keep within frequency band limits. Some DX stations can get away with working outside, but you cannot.
4. Observe calling instructions given by DX stations.
Example: "15U" means "call 15 kc. up from my frequency".
"15D" means down, etc.
5. Give honest reports. Many DX stations depend on W/VE reports for adjustment of station and equipment.
6. Keep your signal clean. Key clicks, ripple, feedback or splatter give you a bad reputation and may get you a citation from FCC.
7. Listen and call the station you want. Calling CQ DX is not the best assurance that the rare DX will reply.
8. When there are several W or VE stations waiting, avoid asking DX to "listen for a friend". Also avoid engaging him in a rag chew against his wishes.

(For Overseas Amateurs)

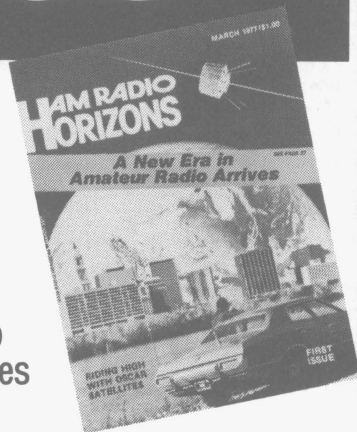
To all overseas amateur stations:

In their eagerness to work you, many W and VE amateurs resort to practices which cause confusion and QRM. Most of this is good-intentioned but ill-advised; some of it is intentional and selfish. The key to the cessation of unethical DX operating practices is in your hands. We believe that your adoption of certain operating habits will increase your enjoyment of amateur radio and that of amateurs on this side who are eager to work you. We recommend your adoption of the following principles:

1. Do not answer calls on your own frequency.
2. Answer calls from W/VE stations only when their signals are of good quality.
3. Refuse to answer calls from other stations when you are already in contact with someone, and do not acknowledge calls from amateurs who indicate they wish to be "next".
4. Give everybody a break. When many W/VE amateurs are patiently and quietly waiting to work you, avoid complying with requests to "listen for a friend".
5. Tell listeners where to call you by indicating how many kilocycles up (U) or down (D) from your frequency you are listening. Examples: c.w. - "CQ DX CQ DX CQ DX 15U DE AC4YN AC4YN AC4YN 15U K"; 'phone - "Answer 15 kilocycles up from my frequency".
6. Use the ARRL-recommended ending signals, especially KN, to indicate to impatient listeners the status of the QSO. (KN means "Go ahead (specific station), all others keep out".
7. Let it be known that you avoid working amateurs who are constant violators of the above principles.

ARRL Communications Department

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CENSUS OF AMATEUR RADIO LICENSES OF THE WORLD*

PREFIX	COUNTRY	NUMBER OF RADIO AMATEUR LICENSES LISTED	PREFIX	COUNTRY	NUMBER OF RADIO AMATEUR LICENSES LISTED	PREFIX	COUNTRY	NUMBER OF RADIO AMATEUR LICENSES LISTED
AC3	SIKKIM.....	1	JA-JR	JAPAN.....	19,883	VR7	CNTRL & SOUTHERN LINE IS..	2
AP	PAKISTAN.....	48	JD1	OGASAWARA.....	251	VR8	TUVALU IS.....	5
AP,S2	BANGLADESH.....	10	JT1	MONGOLIA.....	23	V55	BRUNEI.....	11
A2	BOTSWANA.....	36	JW	SVALBARD IS.....	6	V56	HONG KONG.....	47
A4X	SULTANATE OF OMAN.....	24	JX	JAN MAYEN IS.....	11	VU	INDIA.....	905
A6X	UNITED ARAB EMIRATES.....	1	JY	JORDAN.....	81			
ATX	QATAR.....	1	JZ8	REPUBLIC OF DJIBOUTI.....	26	W,K	U.S.A. (SEE K,W).....	
A9X	BAHRAIN.....	23						
A35	TONGA.....	4	K,W	U.S.A. (48 STATES).....	343,668	XE,XF	MEXICO.....	1,423
A51	BHUTAN.....	3	KA	U.S. PERSONNEL IN JAPAN.....	106	XT2	VOLTAIC REPUBLIC.....	12
			KB6	BAKER,CANTON,ENDERBURY, HOWLAND & PHOENIX IS.....	4	XZ	BURMA.....	16
BV2	TAIWAN (FORMOSA).....	2	KC4	NAVASSA IS.....	2	YB-JD	INDONESIA.....	1,883
CE	CHILE.....	2,772	KC4AA,US	ANTARCTICA.....	15	YJ	NEW HEBRIDES.....	13
CM,CO	CUBA.....	449	KC6	CAROLINE IS.....	23	YK	SYRIA.....	10
CN	MOROCCO.....	104	KG4	GUANTANAMO BAY,CUBA.....	28	YN	NICARAGUA.....	342
CP	BOLIVIA.....	1,148	KG6	MARIANA IS.....	223	YO	ROMANIA.....	1,634
CR9	MACAO.....	2	KH6	HAWAII.....	1,626	YS	EL SALVADOR.....	265
CT1	PORTUGAL.....	827	KJ6	JOHNSTON IS.....	10	YU	YUGOSLAVIA.....	3,110
CT2	AZORES IS.....	26	KL7	ALASKA.....	1,344	YV	VENEZUELA.....	9,082
CT3	MADEIRA IS.....	36	KM6	MIDWAY IS.....	5			
CX	URUGUAY.....	2,753	KP4	PUERTO RICO.....	1,287	ZB2	GIBRALTAR.....	12
C5A	THE GAMBIA.....	20	KP6	JARVIS & PALMYRA IS.....	5	ZD7	SAINT HELENA.....	4
C6A	BAHAMA IS.....	39	KS6	AMERICAN SAMOA.....	32	ZD8	ASCENSION IS.....	22
C21	REPUBLIC OF NAURU.....	8	KV4	VIRGIN IS.....	120	ZD9	TRISTAN DA CUNHA, & GOUGH IS.....	5
C31	ANDORRA.....	81	KW6	WAKE IS.....	9	ZE	RHODESIA.....	159
			KX6	MARSHALL IS.....	38	ZF1	CAYMAN IS.....	44
			KZ5	CANAL ZONE.....	134	ZK1	COOK IS.....	32
DA-DL	FED REP OF GERMANY.....	30,854	LA-LJ	NORWAY.....	4,142	ZK2	NIUE IS.....	3
DM	E GERMAN DEMOCRATIC REP.....	3,308	LU	ARGENTINA.....	21,835	ZL	NEW ZEALAND.....	5,092
DU	PHILIPPINES.....	539	LX	LUXEMBOURG.....	149	ZP	PARAGUAY.....	632
D2A	ANGOLA.....	9	LZ	BULGARIA.....	719	ZR,ZS	SOUTH AFRICA.....	3,017
D4C	REP OF CAPE VERDI.....	3				ZR,ZS3	SOUTH-WEST AFRICA.....	66
D6	STATE OF COMORO.....	1	M1	SAN MARINO.....	6			
EA	SPAIN.....	3,508	DA	PERU.....	1,699	3A	MONACO.....	34
EA6	BALEARIC IS.....	94	DD5	LEBANON.....	144	3B6	AGALEGA.....	2
EA8	CANARY IS.....	345	OE	AUSTRIA.....	2,508	3B7	ST. BRANDON.....	1
EA9	SPANISH SAHARA,IFNI, CEUTA Y MELILLA.....	37	OH	FINLAND.....	3,037	3B8	MAURITIUS IS.....	30
EI	IRELAND.....	529	OH	ALAND IS.....	26	3B9	RODRIGUES.....	1
EL,5L	LIBERIA.....	87	OK,OL	MARKET REEF.....	2	3D2	FIJI IS.....	27
EP,9D5	IRAN.....	81	OK,OL	CZECHOSLOVAKIA.....	3,055	3D6	SWAZILAND.....	26
			ON	BELGIUM.....	2,325	3V8	TUNISIA.....	2
F	FRANCE.....	9,365	OX	GREENLAND.....	84			
FB8	AMSTERDAM,ST PAUL,CROZET, KERGUELEN,TROMELIN IS.....	16	OY	FAEROES IS.....	83	457	SRI LANKA (CEYLON).....	74
FC	CORSICA.....	52	OZ	DENMARK.....	3,842	4U	UNITED NATIONS,GENEVA.....	1
FG7	GUADELOUPE.....	46				4W1,3	YEMEN.....	1
FH8	MAYOTTE.....	2	PA,PE,PI	NETHERLANDS.....	5,421	4X4,4Z4	ISRAEL.....	793
FK8	NEW CALEDONIA.....	49	PJ	NETHERLANDS ANTILLES.....	152			
FM7	MARTINIQUE.....	50	PP,PY	BRAZIL.....	15,978	5B4,ZC4	CYPRUS.....	125
F08	FRENCH POLYNESIA.....	71	PY	FERNANDO DE NORONHA IS.....	14	5H3	TANZANIA.....	5
FP8	ST. PIERRE & MIQUELON IS.....	30	PY	TRINIDADE & MARTIN VAZ.....	1	5N2	NIGERIA.....	7
FR7	REUNION IS.....	48	PZ	SURINAM.....	53	5R8	MADAGASCAR.....	5
FY7	FRENCH GUIANA.....	32	P29	PAPUA NEW GUINEA.....	88	5T5	MAURITANIA.....	7
						5U7	NIGER.....	10
G	ENGLAND.....	20,538	SJ-SM	SWEDEN.....	6,897	5V	TOGO.....	8
GD	ISLE OF MAN.....	53	SP	POLAND.....	6,060	5W1	WESTERN SAMOA.....	17
GI	NORTHERN IRELAND.....	453	ST	SUDAN.....	2	5X5	UGANDA.....	2
GJ	JERSEY.....	57	SU	EGYPT.....	8	5Z4	KENYA.....	75
GM	SCOTLAND.....	1,318	SV	GREECE,CRETE.....	214			
GU	BAILIWICK OF GUERNSEY.....	61	ST9	REPUBLIC OF SEYCHELLES.....	23	6W8	SENEGAL.....	74
GW	WALES.....	973	S8	TRANSKEI.....	8	6Y5	JAMAICA.....	89
			S9	PRINCIPE & SAO TOME IS.....	1			
HA,HG	HUNGARY.....	692	TA,TC	TURKEY.....	27	7J1	OKINO-TORI-SHIMA.....	1
HB	SWITZERLAND.....	2,022	TF	ICELAND.....	68	7P8	LESOTHO.....	13
HB	LIECHTENSTEIN.....	6	TG	GUATEMALA.....	339	7Q7	MALAWI.....	13
HC	ECUADOR.....	787	TI	COSTA RICA.....	771	7X	ALGERIA.....	66
HC8	GALAPAGOS IS.....	7	TI9	COCOS IS.....	5			
HH	HAITI.....	2	TJ	CAMEROON.....	20	8P6	BARBADOS IS.....	130
HI	DOMINICAN REPUBLIC.....	1,237	TR8	GABON.....	24	8Q6,V59	MALDIVE IS.....	1
HK	COLOMBIA.....	2,945	TT8	CHAD.....	4	8R	GUYANA.....	30
HK	BAJO NUEVO IS.....	1	TU2	IVORY COAST.....	98			
HK	MALPELO IS.....	1	TY	PEOPLE'S REP OF BENIN.....	1	9G1	GHANA.....	58
HK	S ANDRES,PROVIDENCIA IS.....	26				9H1,5	MALTA.....	93
HM,HL	KOREA.....	181	U	SOVIET UNION.....	17,020	9H4	GOZO (MALTA).....	12
HP	PANAMA.....	474				9I,9J	ZAMBIA.....	41
HR	HONDURAS.....	226	VE	CANADA.....	17,388	9K2	KUWAIT.....	118
HS	THAILAND.....	81	VK	AUSTRALIA.....	7,651	9L	SIERRA LEONE.....	11
HV	VATICAN CITY.....	2	V01	NEWFOUNDLAND.....	345	9M2	WEST MALAYSIA.....	110
HZ-7Z	SAUDI ARABIA.....	7	V02	LABRADOR.....	41	9M6	SABAH.....	9
			VP1	BELIZE (BRITISH HONDURAS).....	55	9M8	SARAWAK.....	9
I	ITALY.....	11,458	VP2	LEEWARD-WINDWARD IS.....	246	9N1	NEPAL.....	1
IA5	TUSCAN ARCHIPELAGO.....	8	VP5	TURKS & CAICOS IS.....	83	9Q5	REPUBLIC OF ZAIRE.....	19
IC8	CAPRI & ISCHIA IS.....	33	VP8	FALKLAND,SOUTH GEORGIA, S ORKNEY,SOUTH SANDWICH, SOUTH SHETLAND IS.....	47	9Q5	BURUNDI.....	6
IE9	USTICA IS.....	2				9V1	REP OF SINGAPORE.....	43
IF9	LEVANZO IS.....	1				9X	RWANDA.....	24
IG9	LAMPEDUSA IS.....	6				9Y4	TRINIDAD & TOBAGO IS.....	101
IH9	PANTELLERIA IS.....	2	VP9	BERMUDA.....	69			
IM	MADDALENA IS.....	1	VR1	BRITISH PHOENIX,GILBERT, OCEAN IS.....	10			
IS	SARDINIA.....	279	VR3	NORTHERN LINE IS.....	8			
IT	SICILY.....	648	VR4	SOLOMON IS.....	24			
			VR6	PITCAIRN IS.....	1			

*FROM THE 1978 RADIO AMATEUR CALLBOOKS.
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KEEP

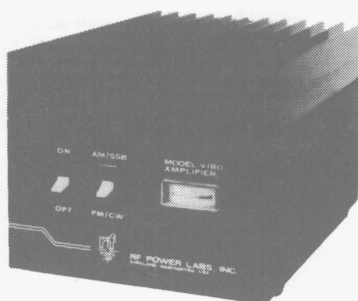
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Universal 19" Rack Mount			\$25

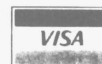
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My name is (please print) _____
First Middle Last

My correct address is _____

City State ZIP CODE

License Issue Date _____

Expiration Date _____

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SPECIAL ARRL QN SIGNALS FOR NET USE

QNA* Answer in prearranged order.

QNB* Act as relay Between and

QNC All net stations Copy.
I have a message for all net stations.

QND* Net is Directed (controlled by net control station).

QNE* Entire net please stand by.

QNF Net is Free (not controlled).

QNG Take over as net control station.

QNH Your net frequency is High.

QNI Net stations report In.*
I am reporting into the net.

QNJ Can you copy me? Can you copy ?

QNK* Transmit messages for to

QNL Your net frequency is Low.

QNM* You are QRMing the net. Please stand by.

QNN Net control station is *
What station has net control?

QNO Station is leaving the net.

QNP Unable to copy you (or).

QNQ* Move frequency to . . . and wait for . . . to finish
handling traffic. Then send him traffic for

QNR* Answer . . . and Relay (or Receive) traffic.

QNS Following Stations are in the net.* (Follow with list).
Request list of stations in the net.

QNT Leaving net Temporarily (or for . . . minutes).

QNU* The net has traffic for YOU. Stand by.

QNV* Establish contact with on this frequency.
If successful, move to . . . and send him traffic for . . .

QNW How do I route messages for ?

QNX You are excused from the net.*
Request to be excused from the net.

QNY* Shift to another frequency (or to . . . kc.)
to clear traffic with

QNZ Zero beat your signal with mine.

*For use only by Net Control Station

Notes on the Use of QN Signals

- The QN signals listed above are special ARRL signals for use in amateur c.w.nets only. Other meanings that may be used in other services do not apply.
- Some QN signals are for use by net control stations only; these are marked with an asterisk (*). Others have slightly different meanings when used by the NCS and net stations; in this case, the meaning when used by the NCS is marked with an asterisk (*).
- Some QN signals have two meanings, the difference depending on how or by whom used. Examples: (a) QNC, when used as a preface to transmission of a message, carries its first meaning; when used by a station reporting into the net (e.g., W9NCS DE W9NET QNI QNC), it carries its second meaning. (b) QNI, when used by the NCS, is a request for stations to report in; when used by a net station, it means that this station is reporting in. (c) QNJ, when used alone, carries its first meaning; when followed by a call, it carries the second meaning.
- QN signals are never followed by a question mark, even though the meaning may be interrogatory.
- Do not use QN signals on phone nets. Say it with words.
- Use QN signals in nets only. They are not for use in casual amateur conversation.
- Make frequent use of standard international "Q" signals in traffic nets, for meanings not covered by QN signals. Examples: QRU, QRV, QSV, QTA, QTB, QTX, etc.

ARRL Communications Department

ARRL Adopted ICAO Phonetic Alphabet

(International Civil
Aviation Organization)

A ALFA
B BRAVO
C CHARLIE
D DELTA
E ECHO
F FOXTROT
G GOLF
H HOTEL
I INDIA
J JULIETT
K KILO
L LIMA
M MIKE
N NOVEMBER
O OSCAR
P PAPA
Q QUEBEC
R ROMEO
S SIERRA
T TANGO
U UNIFORM
V VICTOR
W WHISKEY
X X-RAY
Y YANKEE
Z ZULU

ON GOOD PHONE OPERATING

- Listen much . . . with care. Avoid distractions in your operating room. Tune the band well after each call.
- Time your calls; monitor your own frequency. Call only when a station is free.
- Make short calls, with breaks to listen. Speak clearly, at a steady, modest rate. Three short calls are better than one long one.
- Use push-to-talk technique . . . speak near the mike. Watch the modulation indicator. Keep local background noise at a minimum.
- Make notes. Avoid missing points for comment. Jot down topics to avoid repeats.
- Talk in connected thoughts and phrases. Notes will help avoid mixing up subjects. Push-to-talk technique will keep brother amateurs from calling you a monologist.
- Speak naturally. QSOs need not be cut and dried. Make them interesting. Avoid exhibitionism. Use proper operating form to promote efficiency in communication and add respect and prestige for your station.

Use of this standard list is recommended by ARRL. Haphazard selection of words often results in confusion. A degree of uniformity in use of phonetic words reflects favorably on your individual operating, and on the whole amateur service.

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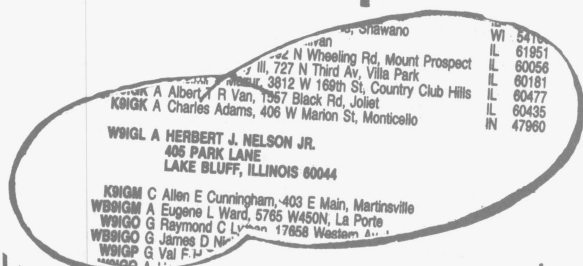
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TELEGRAPHERS' ABBREVIATIONS IN CURRENT USE

— denotes short space, as in American Morse o, eē; c, tē; &, ēs.
— denotes letters sent together, as in ar, sent —.

- A -

aa..... all after
ab..... all before
abl..... able
abt..... about
ads,adr..... address
adv..... advise
af..... Africa
aftmn..... afternoon
agn..... again
ahd..... ahead
alng..... along
am..... amplitude modulation
ani..... any
anr..... another
ant..... antenna
app..... appreciate
ar..... end of message
as,as m..... wait, wait a minute
au..... fractions follow
aw..... auf wiedersehn (Ger), see you later

- B -

b..... be
b4..... before
balun..... balanced-to-unbalanced
bc,bcl..... broadcast, broadcast listener
bcnu..... be seeing you
bd..... buenos dias (Sp), bad
bda..... birthday
bēē,bo,bth..... both, as in "u5 bēē", up both (Morse)
bfo..... beat frequency oscillator
bjr..... bon jour (Fr)
bk,bkg..... back,break,black,book,breaking
bkr..... breaker,circuit-breaker
bn..... been,brown,between,buenas noches (Sp)
bq..... answer to rq (request)
brg,brmg..... bearing,heading
bsr..... bon soir (Fr)
btr..... better
buk..... book

- C -

c..... yes
cd..... card,could
cd,cud,cdnt..... could,couldn't
cfm,cfmg..... confirm,confirming
ck..... check
ckt,cct..... circuit
cl,clg..... call,calling,closed
clbk..... callbook
clix..... clicks
clr..... clear
cndx,cndx,cdx..... conditions
cnt,nti,nty..... count, county
cnvn..... convention
coz,cos,cuz,becuz..... because
cpi..... copy
cq..... general call to all stations
cs..... call sign,call letters
cua,cuagn..... see you again
cul..... see you later
cum,cm,cmg..... come,coming
cupla..... a couple of
cw..... continuous wave,manual keying

- D -

da..... day
dbl..... double
dcn..... direction
dct..... direct
de..... from
df..... direction finder
dif,diff..... difference
dlr,dld..... dealer,deliver,delivered
dn,d..... down (in frequency)
dnt,dmi..... do not, don't mention it
dpe..... dope,information
dr..... dear
ds..... thanks,danke schon (Ger)
dsnt..... does not
dsw..... goodbye,do svidaniya (Russian)
dunno..... don't know
dx..... distance, or rare station
dxpdx..... dx expedition

- E -

ēēm..... old man
eh..... ?
el,els..... antenna element(s)
em..... them
eni,enibdi,eniwh..... any,anybody,anyhow
ere..... here
ēs,es..... and (from Morse "ē")
eta..... estimated time of arrival
etd..... estimated time of departure
eu..... Europe

- F -

fb,vfb..... fine business,good (enthusiastic approval)
fd..... field day,feed,food
fer..... for
fiver..... QSA-5
fld..... field,filed
flr..... floor
fm,frm..... from,frequency modulation
fnd..... friend, find, found
fni..... funny
foxes..... teleprinter test tapes
freq,fq..... frequency
fwd..... forward
fyi..... for your information

- G -

ga..... good afternoon,go ahead
gb..... good bye
gd..... good day, good
ges,gess..... guess
gg..... going
gl..... good luck

- G - (Cont.)

gld..... glad
gn,gnng..... gone,green,going
gnd..... ground
gotta..... got to,have to,must
gp..... ground plane,group (word)
grs..... groups (as in msg code groups)
gud..... good
gtgs..... greetings
gv,gvg..... give,giving

- H -

hd,hrd..... had,hard,heard
hdg..... heading,antenna azimuth
hed..... he would
hi..... high, laughter, (sometimes: !)
hlo..... hello
hlv..... hasta la vista (Sp), see you later
hpe,hpg..... hope,hoping
hpi..... happy
hpn,wa hpn..... happen,what happened
hq,hqtrs..... headquarters
hr,hrg,hrs..... here,hear,hour,hearing,here is,hours
hv,hvnt,hvg..... have,haven't,haveing
hvl..... heavy
hw,hws..... how? how is?

- I -

i?..... ready? here goes the tape
id..... I would
iē..... clear? (response: i-go, e-wait)
im..... I'm,him,intermodulation
imī..... ?
info..... information
irpt..... I repeat

- K -

k..... go ahead,end of transmission
kā..... beginning of transmission (formal)
klx..... clicks
klvb..... que (ke) le vaya bien (Sp)
"That it goes well with you"
kn..... go ahead, but only the station(s) called,
I will answer no other calls,known
knw..... know

- L -

lkg..... looking
ll..... landline,telephone or telegraph
lng..... long
lotsa..... lots of
lp..... long path (long way around earth)
lsn..... listen
ltr..... letter, later
lv,lvg..... leave,leaving
lw..... long wave, "lone wolf" (independent DXer)

- M -

mag,rag..... magazine
mci,mci bcp..... merci, merci beaucoup (Fr), thanks
mgr..... manager
mi..... my
mil,mill,ma..... milliamper, typewriter
min..... minute,minimum
mk..... mark (opposite of space)
ml,mlg..... mail,mailing
mng..... morning,meaning
mni..... many
mnl..... manual
mo..... moment
msg..... message

- N -

n..... no
nd..... nothing doing
ng..... no good
nil..... nothing
nir..... lazy "nil"
nm..... nothing more,no more
nn..... noon
no..... know
nr..... near,number
nvr..... never
nw..... now

- O -

ob,ēēb..... old boy
oc..... old chap
ok,ēēk..... all correct
ol..... old lady
om,ēēm..... old man
op,opr..... operator
opn,opg..... operation,operating
ot..... old timer

- P -

pa..... power amplifier
pbl,pbli..... probab:c, preamble,probably
pctcs..... practices
pd..... period,paid
pdc..... pure dc, clean note
pkg..... package, parking
plsr..... pleasure
pagn..... propagation
ppl..... people
prtbl..... portable
pse,pls,psd..... please,pleased
psbl,psbli..... possible, possibly
psn,psos..... position
pt,ptd,ptg..... point,part, pointed, pointing
pwr..... power

- Q -

qhm..... tuning from high frequency to middle of band
qlf..... try sending with left foot awhile
qlm..... tuning from low frequency to middle of band
qlz..... operator too lazy
qmh..... tuning from middle frequency to high frequency
qml..... tuning from middle frequency to low frequency
qmt..... try mailing your tlc
qrnn..... man-made electrical noise
qsl..... mail card confirming qso
qsl..... send card after receiving mine
qst..... of interest to all amateurs

- R -

r..... received
rac..... rectified ac
rc..... rag chew
rcd,rcd..... received
rcr,rcr,rcvr,rx..... receiver
rd..... read (copy),red
rdi,rdy..... ready
rdo..... radio,radio station
re..... concerning
reg,regs..... regular,regulations
rito..... righto
rm..... room
rng..... running
rockbound,rockbnd..... crystal controlled, no vfo
rpt..... report,repeat
rq..... request
rst..... readability 1-5, strength 1-9, tone 1-9

- S -

sa,sez,sed,sa..... say,says,said, South America
sae..... self-addressed envelope
sase..... self-addressed stamped envelope
sb,ssb..... single sideband
sgd..... signed
shd,shud,shudn't..... should,shouldn't
sig,sigs..... signal(s),signature
simo..... simultaneously
sked..... schedule
sl..... see you later
sn..... soon,seen,signal/noise
sp..... short path (the closer great-circle path)
sri..... sorry
ss..... sweepstakes
ssn..... season,as in "ssns gtgs"
stn..... station
su..... I'll see you
sum..... some
sumbdi..... somebody
svc..... service
svl..... several
sw..... switch,short wave
sx..... dollar sign "\$"

- T -

tbl,trbl..... trouble
tfc..... traffic, messages
thr..... there, their
tmw..... tomorrow
tng..... tuning, thing
tnk..... think
tnsmn..... transmission
tr..... transit, position, there, transmit/receive
T/R..... transmit/receive
trix..... tricks
tt,tts..... that, that is
tu,tku,tnx,tk..... thank you, thanks
tv,tvi..... television, television interference
twx..... telegram
tx,trans..... transmitter

- U -

u,up..... you,upward in frequency
ufb..... vfb,very fine business (Rus)
uk..... United Kingdom
ul,ud..... you will, you would
undld..... undelivered
unhrd..... unheard
ur,urs..... your,yours
ut..... universal time,GMT, "Zebra" time

- V -

vā..... signing off (same as sk)
vert..... vertical
vfb..... very fine business
vfo..... variable-frequency oscillator
vjo..... viejo (Sp), old man
vox..... voice-operated switch
vy,vri..... very
vxo..... variable crystal oscillator

- W -

w,wt..... watt
wa..... word after
wat,watsa..... what,what do you say?
wb..... word before
wd..... word,would
wēē..... who?
wed..... we would
wh..... white
wid..... with
wilco..... will comply,will do
wk,wkg..... week, weak, work, working, QSOing
wri..... worry
wx,wea..... weather

- X -

xfl..... crystal
xtr,xmtr..... transmitter
xq..... fill, or repeat of unreceived copy

- Y -

yda..... yesterday
yl,xyl..... young lady,married young lady
yr..... year,your

- Z -

z..... Greenwich Mean Time, UT, "zebra"
zedder..... New Zealand
zi..... zone of the interior (continental USA)
zilch..... nothing

NUMBER CODE: 1 - a 6 - 6
2 - u 7 - b
3 - v 8 - d
4 - 4 9 - n
5 - e 0 - t

73..... best wishes
88..... love and kisses
99 (rare)..... keep out

TELEGRAPH CODES

CONTINENTAL CODE	MORSE CODE
Used in ham radio	Used on land lines in United States and Canada
A .- B -.- C -.-.- D -.- E . F .-.- G -.- H .-.-.- I .- J .-.-.- K -.-.- L -.-.- M -.-.- N -.-.- O -.-.- P -.-.- Q -.-.- R -.-.- S -.-.- T -.-.- U -.-.- V -.-.- W -.-.- X -.-.- Y -.-.- Z -.-.- & -.-.- There are no space letters in the Continental Code	A .- B -.- C -.-.- D -.- E . F .-.- G -.- H .-.-.- I .- J .-.-.- K -.-.- L -.-.- M -.-.- N -.-.- O -.-.- P -.-.- Q -.-.- R -.-.- S -.-.- T -.-.- U -.-.- V -.-.- W -.-.- X -.-.- Y -.-.- Z -.-.- & -.-.- C, O, R, Y, Z and & are composed of dots and spaces T is a short dash L is a longer dash Zero (0) is usually abbreviated to T
Figures 1 .-.-.- 2 .-.-.- 3 .-.-.- 4 .-.-.- 5 .-.-.- 6 .-.-.- 7 .-.-.- 8 .-.-.- 9 .-.-.- 0 .-.-.-	Figures 1 .-.-.- 2 .-.-.- 3 .-.-.- 4 .-.-.- 5 .-.-.- 6 .-.-.- 7 .-.-.- 8 .-.-.- 9 .-.-.- 0 .-.-.-
Punctuation (.) .-.-.- (,) .-.-.- (?) .-.-.- (:) .-.-.- (;) .-.-.- (-) .-.-.- (!) None at present (') .-.-.- (/) .-.-.- () .-.-.- (") .-.-.-	Punctuation (.) .-.-.- (,) .-.-.- (?) .-.-.- (:) .-.-.- (;) .-.-.- (-) .-.-.- (!) .-.-.- (') .-.-.- (/) .-.-.- () .-.-.- (") .-.-.-

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THESE ARE THE POSTAL RATES IN EFFECT AT PRESS TIME OF THIS ISSUE.

	U.S. and Possessions Canada Mexico	Central America Columbia Venezuela Caribbean	So. America Europe Africa Asia Oceania
Surface postcard (QSL)	9¢	12¢	12¢
Surface letter (1 ounce)	13¢	18¢*	18¢*
Additional ounces up to 13 oz.	11¢		
Air postcard (QSL)	14¢	21¢	21¢
Air letter (1 ounce)	17¢	25¢**	31¢***
Additional ounces up to 9 oz.	15¢	(each ½ oz.)	(each ½ oz.)
Aerogramme	22¢	22¢	22¢

*Over 1 up to 2 oz. 31¢, over 2 up to 4 oz. 41¢, over 4 up to 8 oz. 82¢, over 8 oz. up to 1 lb. \$1.58, over 1 lb. up to 2 lbs. \$2.75 over 2 lbs. up to 4 lbs. \$4.46.

**Over 2 oz. 21¢ each additional half ounce.

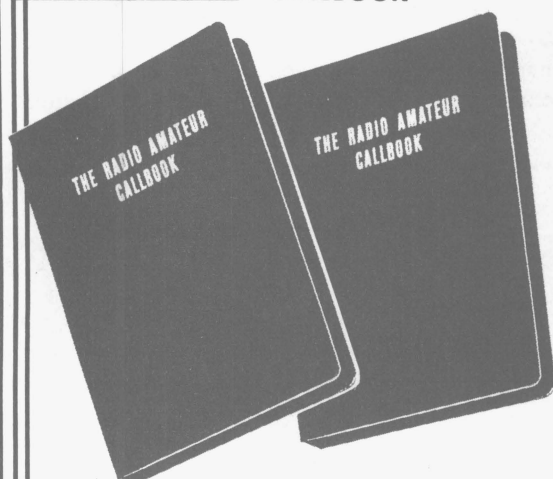
***Over 2 oz. 26¢ each additional half ounce.

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Aland Is. (Finland).....	2	Ethiopia.....	3	Liberia.....	5	St. Pierre and Miquelon Is. (France)	2
Albania.....	4			Libya.....	2	Samoa, Western (Great Britain)...	4
Algeria.....	2	Faeroe Is. (Denmark).....	2	Liechtenstein.....	2	Saudi Arabia.....	3
Andorra.....	2	Falkland Is. (Great Britain)....	3	Luxembourg.....	2	Senegal.....	2
Angola (Portugal).....	3	Fiji Is. (Great Britain).....	4			Seychelles Is. (Great Britain)...	3
Argentina.....	3	Finland.....	2	Macao (Portugal).....	3	Sierra Leone.....	3
Ascension Is. (Great Britain)...	3	France.....	2	Madeira Is. (Portugal).....	2	Solomon Is. (Great Britain)....	5
Australia.....	4	French Polynesia Is.	2	Malagasy Republic (Madagascar)	3	Somalia.....	5
Austria.....	2	French Somaliland (Afars and Issas)	2	Malawi.....	6	South Africa.....	5
Azores Is. (Portugal).....	2			Malaysia.....	5	South-West Africa (Namibia)...	5
		Gabon Republic.....	2	Maldives Is.	5	South Yemen.....	5
Bahama Is. (Great Britain).....	2	Gambia.....	4	Mali Republic.....	2	Spain.....	2
Balearic Is. (Spain).....	2	Germany, Western Zone.....	2	Malta (Great Britain).....	2	Spanish West Africa.....	2
Bangladesh.....	2	Germany, Eastern Zone.....	2	Martinique (France).....	2	Sri Lanka (Ceylon).....	5
Barbados Is. (West Indies).....	3	Ghana.....	3	Mauritania.....	2	Sudan.....	3
Belgium.....	2	Gibraltar (Great Britain).....	2	Mauritius (Great Britain).....	3	Surinam.....	1
Belize.....	2	Gilbert and Ellice Is.	5	Mexico.....	2	Swaziland.....	5
Bermuda Is.	2	Great Britain.....	2	Morocco.....	2	Sweden.....	2
Bhutan.....		Greece (incl. Crete).....	2	Mozambique (Portugal).....	3	Switzerland.....	2
Bolivia.....	2	Greenland (Denmark).....	2			Syria.....	3
Botswana.....	5	Grenada & Grenadines.....	4	Nauru Is.	4		
Brazil.....	2	Guadeloupe Is.	2	Nepal.....	5	Tanzania.....	4
Brunei.....	8	Guatemala.....	2	Netherlands.....	2	Tasmania (Australia).....	4
Bulgaria.....	3	Guiana, French.....	2	Netherlands Antilles.....	2	Thailand.....	3
Burma.....	4	Guinea, Portuguese.....	2	New Caledonia (France).....	2	Timor (Portugal).....	4
Burundi.....	3	Guinea, Republic of.....	2	New Hebrides Is.	2	Togo.....	2
		Guyana.....	4	New Zealand.....	3	Tonga Is. (Great Britain).....	3
Cambodia/Khmer Republic.....	3			Nicaragua.....	4	Trinidad and Tobago Is. (Britain)	2
Cameroon.....	2	Haiti.....	5	Niger.....	2	Tristan de Cunha & Gough Is...	3
Canada.....	2	Honduras, Republic of.....	3	Nigeria.....	3	Tunisia.....	2
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Cape Verde Is. (Portugal).....	3	Hungary.....	2	Norway.....	2	Turks & Caicos Is. (Great Britain)	2
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China (Mainland).....	3	Iraq.....	3	Paraguay.....	3	Uruguay.....	2
Colombia.....	3	Ireland (Eire).....	3	Persian Gulf Ports.....	4		
Comoro Is. (France).....	3	Israel.....	3	Peru.....	3	Vatican City.....	2
Congo (Brazzaville).....	2	Italy.....	2	Philippines.....	3	Venezuela.....	2
Cook Is. (New Zealand).....	3	Ivory Coast.....	2	Pitcairn Is. (Great Britain)....	2	Vietnam.....	2
Corsica (France).....	2			Poland.....	2	Virgin Is. (Great Britain).....	2
Costa Rica.....	2	Jamaica.....	2	Portugal.....	2		
Cuba.....	4	Japan.....	3			West Irian (Indonesia).....	3
Cyprus.....	4	Jordan.....	3	Qatar.....	4	Windward Is. (West Indies)...	2
Czechoslovakia.....	2						
		Kenya.....	4	Reunion Is. (France).....	2	Yemen.....	
Dahomey.....	2	Korea.....	3	Rhodesia.....	5	Yugoslavia.....	3
Denmark.....	2	Kuwait.....	4	Romania.....	3		
Dominican Republic.....	2			Rwanda.....	2	Zaire, Rep. of.....	2
		Laos.....	3	Ryukyu Is.		Zambia.....	
Ecuador.....	3	Lebanon.....	3			Zanzibar.....	4
Egypt (United Arab Republic)...	2	Leeward Is. (West Indies).....	3				

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ARRL SAFETY CODE

1. KILL ALL POWER CIRCUITS COMPLETELY BEFORE TOUCHING ANYTHING BEHIND THE PANEL OR INSIDE THE CHASSIS OR THE ENCLOSURE.
2. Never allow anyone else to switch the power on and off for you while you're working on equipment.
3. Don't shoot trouble in a transmitter when you're tired or sleepy.
4. Never adjust variable links by hand. Use special care when checking energized tank circuits with absorption-type wavemeters.
5. Avoid bodily contact with grounded metal (racks, radiators) or damp floors when working on the transmitter.
6. Never wear phones while working on gear.
7. Follow the rule of keeping one hand in your pocket.
8. Instruct members of your household HOW to turn the power off, and HOW to apply artificial respiration. Instruction sheets on the latest approved method of resuscitation can be obtained from your local Red Cross office.
9. Develop your own safety technique. TAKE TIME TO BE CAREFUL. DEATH IS PERMANENT.

RULES FOR EQUIPMENT DESIGN AND CONSTRUCTION

ONE DISCONNECT SWITCH

A single plainly-labeled main switch should be provided to cut off all power from the equipment.

POWER SUPPLIES

All power supplies should be so enclosed or constructed that accidental bodily contact with power circuits is impossible.

All negative plate-supply and positive bias-supply terminals should be connected to the chassis and the chassis connected to a water pipe or other good ground connection.

Every power supply should use a conservatively-rated bleeder resistor. If it is placed on top of the chassis for ventilation, cover it with screening or perforated metal. When using shield wire for external power cabling, make sure the shielding is grounded to protect you in case of insulation breakdown.

PANEL CONTROLS AND METERING

Every control shaft extending through the front of the panel should be at ground potential. The frames of key or metering jacks should be fastened to the grounded panel. Meters, unless connected in the cathode or centertap, should be recessed to avoid danger of contact with the adjusting screw.

AUDIO EQUIPMENT

In addition to the construction rules set forth for power supplies, the following rule should be followed for speech equipment. The microphone stand and the enclosure should always be connected to the microphone-cable shield which, in turn, should be grounded to the chassis.

LIGHTNING PROTECTION

Merely "grounding everything" is not adequate protection from direct lightning strikes or static build-up. Lightning has devious methods of going where it isn't supposed to. There is only one way to protect your radio from lightning, and that is to disconnect everything completely and then ground all the disconnected lines. This applies to incoming power circuits, also; "pulling the big switch" is an old adage which makes sense. Finally, pay special attention to rotor control boxes; a lightning strike can come into the box via the control cable, go through the control box, out the power cord, and through your "cube-tap" (or whatever) and thence up the power cord of your radio, even though all power cords have been disconnected from the wall socket! Please, HANDLE EVERY CIRCUIT WITH CARE. The lowly 110-115 volts has caused more electrocutions than any other.

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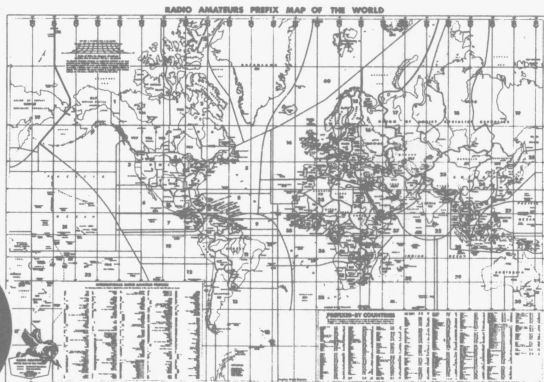
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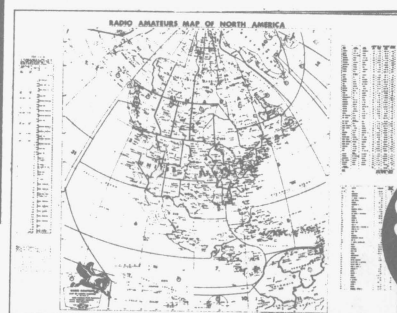
RADIO AMATEURS PREFIX MAP OF THE WORLD!— ONE SIDE - 40-zone mercator projection of the world, with prefix shown on each Country plus capitals and major cities. Also DX zones and continental boundaries, time zones throughout the world, prefixes and countries listed alphabetically for quick cross reference with continent and DX zones.

REVERSE SIDE - 90-zone robinson projection of the world, including all information indicated above.

RADIO AMATEURS MAP OF NORTH AMERICA! Includes Central America and the Caribbean to the equator. Polyconic projection, showing call areas, zone boundaries, prefixes and time zones.

MAP OF NORTH
AMERICA

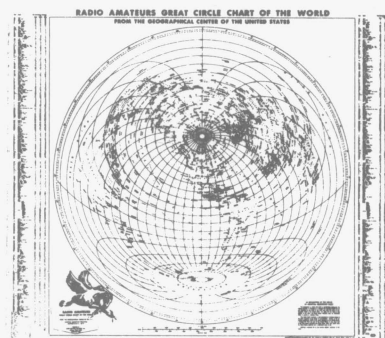
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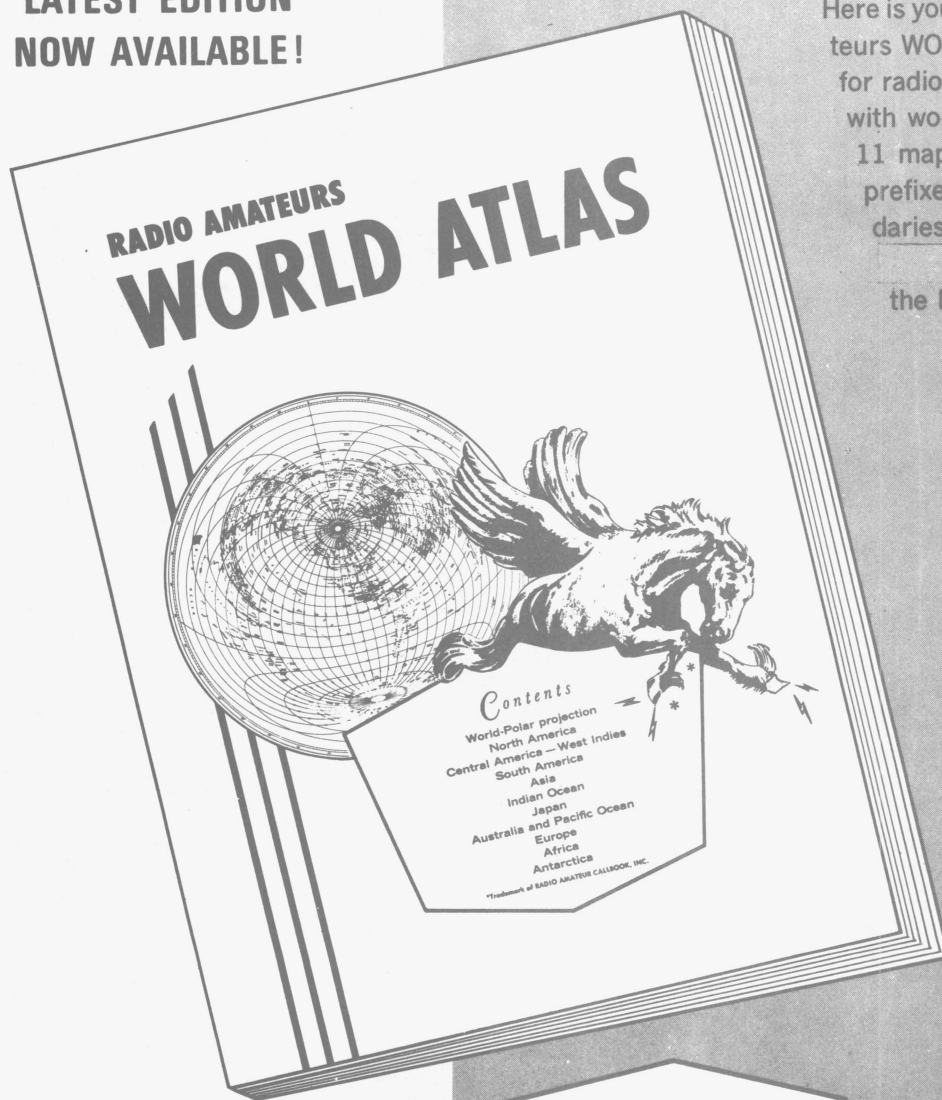
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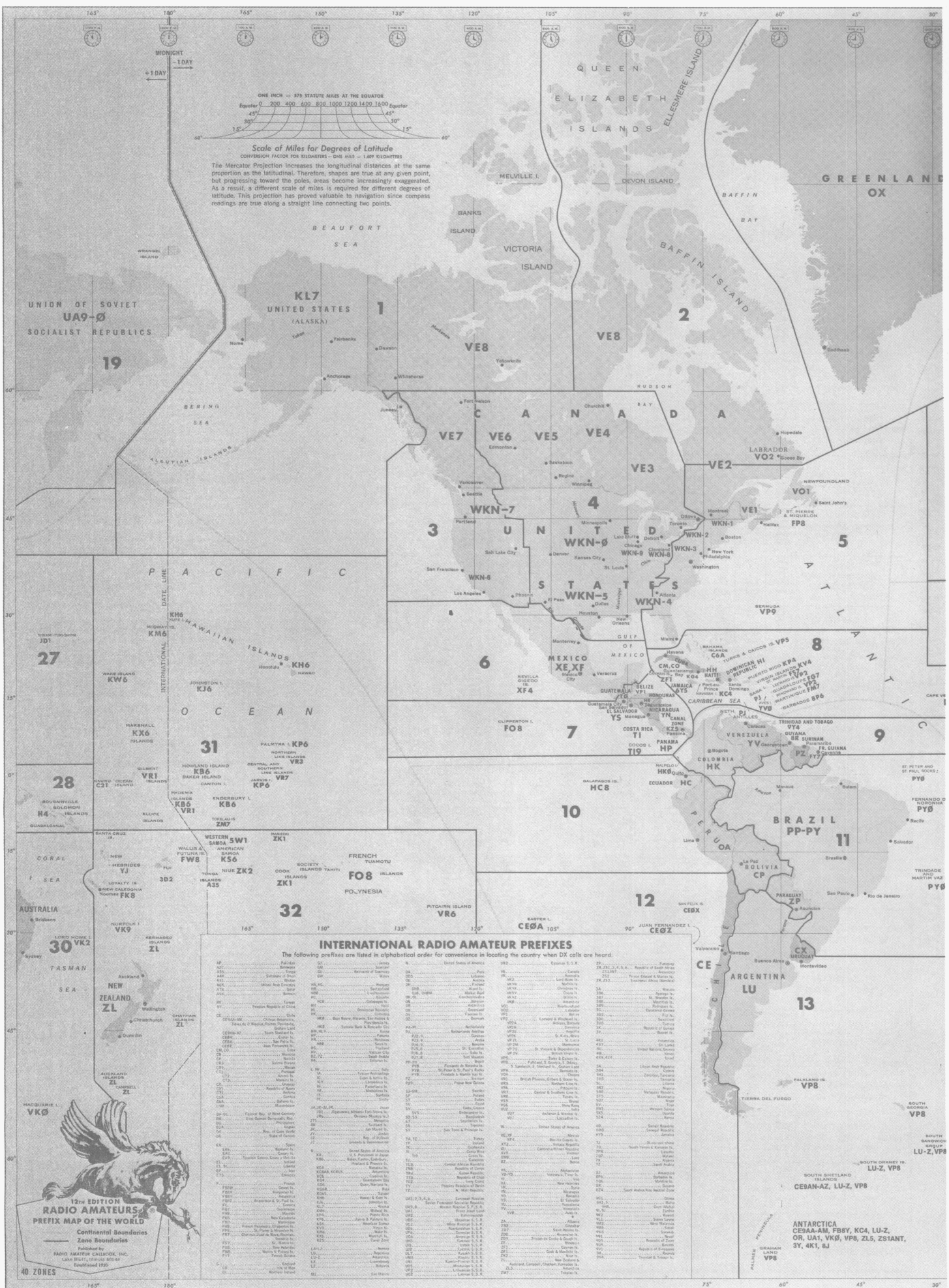
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WORLD TIME CONVERSION CHART IN HOURS

Greenwich Meridian Time. London, Eng- land.	Central Europe, Ber- lin, Geneva, Stock- holm, Vienna.	Eastern Europe, Ath- ens, Cape Town, Cairo, Moscow	Arabia, Armenia, Ethiopia, Madagas- car.	Mauritius, Iran, Reunion Island.	Central Russia, Bom- bay, India.	Calcutta, Novosi- birsk Russia, Tibet.	Sumatra, Thailand, Laos.	Philippines, Perth, Australia	Central Australia, Tokyo, Japan.	Eastern Australia, Melbourne, Sydney.	New Caledonia.	International Date Line, New Zealand, Fiji Islands.	Norfolk, Alaska, Samoa Islands.	Hawaii, Midway Islands.	Eastern Alaska, Dawson	Pacific Standard Time. Los Angeles, Seattle, Juneau.	Mountain Standard Time. Calgary, Denver, Phoenix.	Central Standard Time. Chicago, Costa Rica.	Eastern Standard Time. Montreal, New York, Peru.	Atlantic Standard Time. Argentina, Nova Scotia.	Greenland Rio de Janeiro, Brazil.	Azores.	Iceland, Canary Islands.
0000	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM
0100	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night
0200	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM
0300	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM
0400	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM
0500	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM
0600	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM
0700	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM
0800	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM
0900	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM
1000	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM
1100	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM
1200	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM
1300	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon
1400	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM
1500	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM
1600	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM
1700	6PM	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM
1800	7PM	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM
1900	8PM	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM
2000	9PM	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM
2100	10PM	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM
2200	11PM	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM
2300	Mid Night	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM	9AM	10AM	11AM	Noon	1PM	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM

With this chart you can convert standard time in any time zone to GMT or tell what time it is in other parts of the world. To correctly use this chart visualize each horizontal line as a complete circle. From your time zone tracing horizontally to the right (Counter Clockwise) it will be tomorrow when you pass midnight and yesterday when you pass the international date line. To the left (Clockwise) it will be yesterday when you pass midnight and tomorrow when you pass the international date line. There is no change in date when you pass both midnight and the international date line going in one direction. For instance at 8 PM in New York Eastern Standard Time it is 2 AM tomorrow in Berlin, Germany and 11 AM tomorrow in Sydney, Australia. Always trace in the shortest direction from your time zone to find what time it is in any other zone.



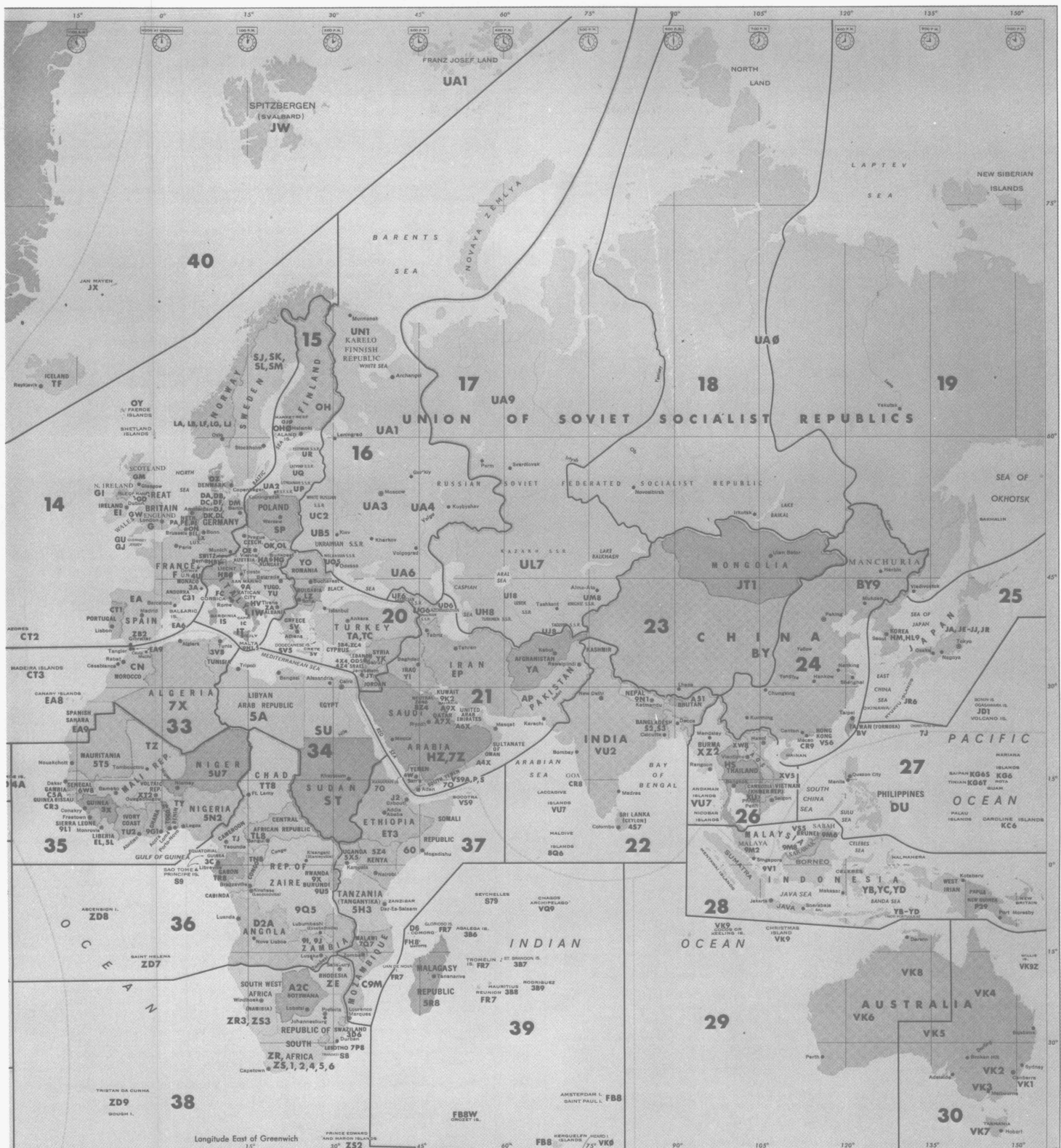
ONE INCH = 575 STATUTE MILES AT THE EQUATOR
Equator 200 400 600 800 1000 1200 1400 1600
45° 30° 15° 0° 15° 30° 45° 60°

Scale of Miles for Degrees of Latitude
CONVERSION FACTOR FOR DISTANCES - ONE MINUTE = 1.852 KILOMETERS
The Mercator Projection increases the longitudinal distances at the same proportion as the latitudinal. Therefore, shapes are true at any given point, but progressing toward the poles, areas become increasingly exaggerated. As a result, a different scale of miles is required for different degrees of latitude. This projection has proved valuable in navigation since compass readings are true along a straight line connecting two points.

INTERNATIONAL RADIO AMATEUR PREFIXES

The following prefixes are listed in alphabetical order for convenience in locating the country when DX calls are heard.

A11	Albania	OK	United States of America	ES	Spain	PA	Panama
AG	Argentina	OL	Latvia	FA	French Polynesia	PE	Peru
AI	Anguilla	OM	Moldova	FB	Brazil	PF	French Polynesia
AK	Alaska	ON	Norway	FC	French Polynesia	PG	Papua New Guinea
AL	Albania	OO	Ontario	FD	French Polynesia	PH	Philippines
AM	Antigua	OP	Ohio	FE	French Polynesia	PI	Puerto Rico
AN	Aruba	OR	Oregon	FF	French Polynesia	PJ	Puerto Rico
AO	Angola	OS	Oklahoma	FG	French Polynesia	PK	Pakistan
AP	Aruba	OT	Ottawa	FH	French Polynesia	PL	Poland
AQ	Antarctica	OU	Utah	FI	French Polynesia	PM	Puerto Rico
AR	Argentina	OV	Oregon	FJ	French Polynesia	PN	Puerto Rico
AS	Alaska	OX	Oregon	FK	French Polynesia	PO	Puerto Rico
AT	Austria	OY	Oregon	FL	French Polynesia	PP	Puerto Rico
AU	Australia	OZ	Oregon	FM	French Polynesia	PR	Puerto Rico
AW	Aruba	PA	Panama	FO	French Polynesia	PS	Puerto Rico
AX	Åland Islands	PB	Puerto Rico	FP	French Polynesia	PT	Puerto Rico
AY	Aruba	PC	Puerto Rico	FQ	French Polynesia	PU	Puerto Rico
AZ	Azerbaijan	PD	Puerto Rico	FR	French Polynesia	PV	Puerto Rico
BA	Bahamas	PE	Peru	FS	French Polynesia	PW	Puerto Rico
BB	Barbados	PF	French Polynesia	FT	French Polynesia	PX	Puerto Rico
BC	Belize	PG	Papua New Guinea	FU	French Polynesia	PY	Puerto Rico
BD	Bangladesh	PH	Philippines	FV	French Polynesia	PZ	Puerto Rico
BE	Belgium	PI	Puerto Rico	FW	French Polynesia	QA	Qatar
BF	Burkina Faso	PJ	Puerto Rico	FX	French Polynesia	QB	Qatar
BG	Bulgaria	PK	Pakistan	FY	French Polynesia	QC	Qatar
BH	Bahrain	PL	Poland	FZ	French Polynesia	QD	Qatar
BI	Burundi	PM	Puerto Rico	GA	Gabon	QE	Qatar
BJ	Benin	PN	Puerto Rico	GB	Great Britain	QF	Qatar
BK	Belize	PO	Puerto Rico	GC	Great Britain	QG	Qatar
BL	Belize	PP	Puerto Rico	GD	Grenada	QH	Qatar
BM	Bermuda	PR	Puerto Rico	GE	Germany	QI	Qatar
BN	Brunei	PS	Puerto Rico	GF	Guinea	QJ	Qatar
BO	Bolivia	PT	Puerto Rico	GG	Guinea	QK	Qatar
BP	Bahamas	PU	Puerto Rico	GH	Ghana	QL	Qatar
BQ	Bonaire	PV	Puerto Rico	GI	Gibraltar	QM	Qatar
BR	Brazil	PW	Puerto Rico	GJ	Guernsey	QN	Qatar
BS	Bahamas	PX	Puerto Rico	GK	Guernsey	QO	Qatar
BT	Bhutan	PY	Puerto Rico	GL	Greenland	QP	Qatar
BV	Bouvet Island	PZ	Puerto Rico	GM	Germany	QQ	Qatar
BW	Botswana	QA	Qatar	GN	Guinea	QR	Qatar
BX	Bahamas	QB	Qatar	GO	Guinea	QS	Qatar
BY	Belarus	QC	Qatar	GP	Guinea	QT	Qatar
BZ	Belize	QD	Qatar	GQ	Guinea	QU	Qatar
CA	Canada	QE	Qatar	GR	Greece	QM	Qatar
CB	Cuba	QF	Qatar	GS	Greenland	QN	Qatar
CC	Cocos Islands	QG	Qatar	GT	Guatemala	QO	Qatar
CD	Congo	QH	Qatar	GU	Guam	QP	Qatar
CE	Czech Republic	QI	Qatar	GV	Guinea	QQ	Qatar
CF	Congo	QJ	Qatar	GW	Guinea	QR	Qatar
CG	Congo	QK	Qatar	GY	Guyana	QS	Qatar
CH	China	QL	Qatar	HA	Haiti	QT	Qatar
CI	Cote d'Ivoire	QM	Qatar	HB	Haiti	QU	Qatar
CJ	Croatia	QN	Qatar	HC	Honduras	QV	Qatar
CK	Cook Islands	QO	Qatar	HD	Honduras	QW	Qatar
CL	Chile	QP	Qatar	HE	Honduras	QX	Qatar
CM	Cameroon	QR	Qatar	HF	Honduras	QY	Qatar
CN	China	QS	Qatar	HG	Honduras	QZ	Qatar
CO	Colombia	QT	Qatar	HH	Honduras	RA	Russia
CR	Costa Rica	QU	Qatar	HI	Honduras	RB	Russia
CS	Czech Republic	QV	Qatar	HJ	Honduras	RC	Russia
CT	Cuba	QW	Qatar	HK	Honduras	RD	Russia
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CW	Curaçao	QZ	Qatar	HN	Honduras	RG	Russia
CX	Christmas Island	RA	Russia	HO	Honduras	RH	Russia
CY	Cyprus	RB	Russia	HP	Honduras	RI	Russia
DA	Denmark	RC	Russia	HQ	Honduras	RJ	Russia
DB	Denmark	RD	Russia	HR	Honduras	RK	Russia
DC	Denmark	RE	Russia	HS	Honduras	RL	Russia
DD	Denmark	RF	Russia	HT	Honduras	RM	Russia
DE	Germany	RG	Russia	HU	Hungary	RN	Russia
DF	Denmark	RH	Russia	IA	India	RO	Russia
DG	Denmark	RI	Russia	IB	India	RP	Russia
DH	Denmark	RJ	Russia	IC	India	RS	Russia
DI	Denmark	RK	Russia	ID	Indonesia	RT	Russia
DJ	Djibouti	RL	Russia	IE	Ireland	RU	Russia
DK	Denmark	RM	Russia	IF	Ireland	RV	Russia
DL	Denmark	RN	Russia	IG	Ireland	RW	Russia
DM	Denmark	RO	Russia	IH	Ireland	RX	Russia
DN	Denmark	RP	Russia	II	Ireland	RY	Russia
DO	Denmark	RR	Russia	IJ	Ireland	RZ	Russia
DP	Denmark	RS	Russia	IK	Ireland	SA	South Africa
DQ	Denmark	RT	Russia	IL	Israel	SB	South Africa
DR	Denmark	RU	Russia	IM	Israel	SC	South Africa
DS	Denmark	RV	Russia	IN	India	SD	South Africa
DT	Denmark	RW	Russia	IO	Indian Ocean	SE	Sweden
DU	Denmark	RX	Russia	IP	Ireland	SF	Sweden
DV	Denmark	RY	Russia	IQ	Ireland	SG	Sweden
DW	Denmark	RZ	Russia	IR	Ireland	SH	Sweden
DX	Denmark	SA	South Africa	IS	Israel	SI	Slovenia
DY	Denmark	SB	South Africa	IT	Italy	SJ	Slovenia
DZ	Denmark	SC	South Africa	IU	Italy	SK	Slovakia
EA	Spain	SD	Sweden	IV	Ireland	SL	Slovenia
EB	Spain	SE	Sweden	IZ	Israel	SM	San Marino
EC	Ecuador	SF	Sweden	JA	Japan	SN	San Marino
ED	Ecuador	SG	Sweden	JB	Japan	SO	San Marino
EE	Ecuador	SH	Sweden	JC	Japan	SP	Spain
EF	Ecuador	SI	Slovenia	JD	Japan	SQ	Spain
EG	Egypt	SJ	Slovenia	JE	Japan	SR	Spain
EI	Ireland	SK	Slovakia	JF	Japan	SS	Spain
EJ	Ireland	SL	Slovenia	JG	Japan	ST	Spain
EK	Ireland	SM	San Marino	JH	Japan	SV	Spain
EL	Ireland	SN	San Marino	JI	Japan	SW	Spain
EM	Ireland	SO	San Marino	JJ	Japan	SX	Spain
EN	Ireland	SP	Spain	JK	Japan	SY	Spain
EO	Ireland	SQ	Spain	JL	Japan	SZ	Spain
EP	Ireland	SR	Spain	JM	Japan	TA	Taiwan
EQ	Ireland	SS	Spain	JN	Japan	TB	Taiwan
ER	Ireland	ST	Spain	JO	Japan	TC	Taiwan
ES	Spain	SV	Spain	JP	Japan	TD	Taiwan
ET	Egypt	SX	Spain	JQ	Japan	TE	Taiwan
EU	Egypt	SY	Spain	JR	Japan	TF	Taiwan
EV	Egypt	SZ	Spain	JS	Japan	TH	Thailand
EW	Egypt	TA	Taiwan	JT	Japan	TI	Thailand
EX	Egypt	TB	Taiwan	JU	Japan	TJ	Taiwan
EY	Egypt	TC	Taiwan	JV	Japan	TK	Taiwan
EZ	Egypt	TD	Taiwan	JW	Japan	TL	Taiwan
FA	France	TE	Taiwan	JX	Japan	TM	Taiwan
FB	Brazil	TF	Taiwan	JY	Japan	TN	Taiwan
FC	France	TH	Thailand	JZ	Japan	TO	Taiwan
FD	France	TI	Thailand	KA	Kazakhstan	TP	Taiwan
FE	France	TJ	Taiwan	KB	Kazakhstan	TQ	Taiwan
FF	France	TK	Taiwan	KC	Kazakhstan	TR	Taiwan
FG	France	TL	Taiwan	KD	Kazakhstan	TS	Taiwan
FH	France	TM	Taiwan	KE	Kazakhstan	TT	Taiwan
FI	France	TN	Taiwan	KF	Kazakhstan	TU	Taiwan
FJ	France	TO	Taiwan	KG	Kazakhstan	TV	Taiwan
FK	France	TP	Taiwan	KH	Kazakhstan	TW	Taiwan
FL	France	TQ	Taiwan	KI	Kazakhstan	TX	Taiwan
FM	France	TR	Taiwan	KJ	Kazakhstan	TY	Taiwan
FN	France	TS	Taiwan	KK	Kazakhstan	TZ	Taiwan
FO	France	TT	Taiwan	KL	Kazakhstan	UA	Ukraine
FP	France	TU	Taiwan	KM	Kazakhstan	UB	Ukraine
FQ	France	TV	Taiwan	KN	Kazakhstan	UC	Ukraine
FR	France	TW	Taiwan	KO	Kazakhstan	UD	Ukraine
FS	France	TX	Taiwan	KP	Kazakhstan	UE	Ukraine
FT	France	TY	Taiwan	KQ	Kazakhstan	UF	Ukraine
FU	France	TZ	Taiwan	KR	Kazakhstan	UG	Ukraine
FV	France	UA	Ukraine	KS	Kazakhstan	UH	Ukraine
FW	France	UB	Ukraine	KT	Kazakhstan	UI	Ukraine
FX	France	UC	Ukraine	KU	Kazakhstan	UJ	Ukraine
FY	France	UD	Ukraine	KV	Kazakhstan	UK	Ukraine
FZ	France	UE	Ukraine	KW	Kazakhstan	UL	Ukraine
GA	Gabon	UF	Ukraine	KX	Kazakhstan	UM	Ukraine
GB	Great Britain	UG	Ukraine	KY	Kazakhstan	UN	Ukraine
GC	Great Britain	UH	Ukraine	KZ	Kazakhstan	UO	Ukraine
GD	Grenada	UI	Ukraine	LA	Laos	UP	Ukraine
GE	Germany	UJ	Ukraine	LB	Lebanon	UQ	Ukraine
GF	Guinea	UK	Ukraine	LC	Liechtenstein	UR	Ukraine
GG	Guinea	UL	Ukraine	LD	Liechtenstein	US	Ukraine
GH	Ghana	UM	Ukraine	LE	Lebanon	UT	Ukraine
GI	Gibraltar	UN	Ukraine	LF	Lebanon	UU	Ukraine
GJ	Guernsey	UO	Ukraine	LG	Lebanon	UV	Ukraine
GK	Guernsey	UP	Ukraine	LH	Lebanon	UW	Ukraine
GL	Greenland	UQ	Ukraine	LI	Lithuania	UX	Ukraine
GM	Germany	UR	Ukraine	LJ	Lithuania	UY	Ukraine
GN	Guinea	US	Ukraine	LK	Lithuania	UZ	Ukraine
GO	Guinea	UT	Ukraine	LM	Lithuania	VA	Venezuela
GP	Guinea	UU	Ukraine	LN	Lithuania	VB	Venezuela
GQ	Guinea	UV	Ukraine	LO	Luxembourg	VC	Venezuela
GR	Greece	UW	Ukraine	LP	Luxembourg	VD	Venezuela
GS	Greenland	UX	Ukraine	LY	Luxembourg	VE	Venezuela
GT	Guatemala	UY	Ukraine	LZ	Luxembourg	VF	Venezuela
GU	Guam	UZ	Ukraine	MA	Malaysia	VG	Venezuela
GV	Guinea	VA	Venezuela	MB	Malaysia	VH	Venezuela
GW	Guinea	VB	Venezuela	MC	Malaysia	VI	Vietnam
GY	Guyana	VC	Venezuela	MD	Malaysia	VJ	Vietnam
HA	Haiti	VD	Venezuela	ME	Malaysia	VK	Vietnam
HB	Haiti	VE	Venezuela	MF	Malaysia	VL	Vietnam
HC	Honduras	VF	Venezuela	MG	Malaysia	VM	Vietnam
HD	Honduras	VG	Venezuela	MH	Malaysia	VN	Vietnam
HE	Honduras	VH	Vietnam	MI	Malaysia	VO	Vietnam
HF	Honduras	VI	Vietnam	MM	Malaysia	VP	Vietnam
HG	Honduras	VJ	Vietnam	MM			



PREFIXES-BY COUNTRIES

The following countries listed in alphabetical order by country show international radio amateur prefixes. Characters in () designate the continent and zone in which the country is located. Abbreviations are as follows: A—Asia, AF—Africa, E—Europe, NA—North America, O—Oceania, SA—South America.

[illegible][illegible]

INTERNATIONAL "Q" SIGNALS

Abbreviation	Question	Answer or Advice	Abbreviation	Question	Answer or Advice
QRA	What is the name of your station?	The name of my stations is . . .	QSR	Will you listen to . . . [call sign(s)] on . . . kc/s (or Mc/s)?	I am listening to . . . [call sign(s)] on . . . kc/s (or Mc/s).
QRB	How far approximately are you from my station?	The approximate distance between our stations is . . . nautical miles (or kilometres)	QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency [or on . . . kc/s (or Mc/s)].
QRD	Where are you bound and where are you from?	I am bound for . . . from . . .	QSZ	Shall I send each word or group more than once?	Send each word or group twice (or . . . times).
QRG	Will you tell me my exact frequency or that of . . .?	Your exact frequency (or that of . . . is . . . kc/s (or Mc/s).	QTA	Shall I cancel telegram number . . . as if it had not been sent?	Cancel telegram number . . . as if it had not been sent.
QRH	Does my frequency vary?	Your frequency varies.	QTB	Do you agree with my counting of words?	I do not agree with your counting of words; I will repeat the first letter or digit of each word or group.
QRI	How is the tone of my transmission?	The tone of your transmission is . . . (1. Good; 2. Variable; 3. Bad).	QTC	How many telegrams have you to send?	I have . . . telegrams for you (or for . . .).
QRK	What is the readability of my signals (or those of . . .)?	The readability of your signals (or those of . . .) is . . . (1. Unreadable; 2. Readable now and then; 3. Readable, but with difficulty; 4. Readable; 5. Perfectly readable).	QTE	What is my TRUE bearing from you? or What is my TRUE bearing from . . . (call sign)?	Your TRUE bearing from me is . . . degrees (at . . . hours) or Your TRUE bearing from . . . (call sign) was . . . degrees (at . . . hours)
QRL	Are you busy?	I am busy (or I am busy with . . .). Please do not interfere.	QTF	What is the TRUE bearing of . . . (call sign) from . . . (call sign)?	The TRUE bearing of . . . (call sign) from . . . (call sign) was . . . degrees at . . . hours.
QRM	Are you being interfered with?	I am being interfered with.	QTH	Will you send two dashes of ten seconds each followed by your call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]?	I am going to send two dashes of ten seconds each followed by my call sign (repeated . . . times) [on . . . kc/s (or Mc/s)]
QRN	Are you troubled by static?	I am troubled by static.	QTI	Will you request . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s)?	I have requested . . . to send two dashes of ten seconds followed by his call sign (repeated . . . times) on . . . kc/s (or Mc/s).
QRO	Shall I increase power?	Increase power.	QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is . . . latitude . . . longitude (or according to any other indication).
QRP	Shall I decrease power?	Decrease power.	QTI	What is your TRUE track?	My TRUE track is . . . degrees.
QRQ	Shall I send faster?	Send faster (. . . words per minute).	QTI	What is your speed?	My speed is . . . knots (or kilometres per hour).
QRR	Are you ready for automatic operation?	I am ready for automatic operation. Send at . . . words per minute.	QTL	What is your TRUE heading?	My TRUE heading is . . . degrees.
QRS	Shall I send more slowly?	Send more slowly (. . . words per minute).	QTN	At what time did you depart from . . . (place)?	I departed from . . . (place) at . . . hours.
QRT	Shall I stop sending?	Stop sending.	QTO	Have you left dock (or port)?	I have left dock (or port)
QRU	Have you anything for me?	I have nothing for you.	QTP	Are you airborne?	I am airborne.
QRV	Are you ready?	I am ready.	QTP	Are you going to enter dock (or port)?	I am going to enter dock (or port)
QRW	Shall I inform . . . that you are calling him on . . . kc/s (or Mc/s).	Please inform . . . that I am calling him on . . . kc/s (or Mc/s).	QTP	Are you going to alight (or land)?	I am going to alight (or land).
QRX	When will you call me again?	I will call you again at . . . hours [on . . . kc/s (or Mc/s)].	QTR	Can you communicate with my station by means of the International Code of Signals?	I am going to communicate with your station by means of the International Code of Signals.
QRY	What is my turn?	Your turn is Number . . . (Relates to communication.)	QTR	What is the correct time?	The correct time is . . . hours.
QRZ	Who is calling me?	You are being called by . . . [on . . . kc/s (or Mc/s)].	QTS	Will you send your call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that your frequency may be measured?	I will send my call sign for . . . minute(s) now (or at . . . hours) [on . . . kc/s (or Mc/s)] so that my frequency may be measured.
QSA	What is the strength of my signals (or those of . . .)?	The strength of your signals (or those of . . .) is . . . (1. Scarcely perceptible; 2. Weak; 3. Fairly good; 4. Good; 5. Very good).	QTV	What are the hours during which your station is open?	My station is open from . . . to . . . hours.
QSB	Are my signals fading?	Your signals are fading.	QTV	Shall I stand guard for you on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours)?	Stand guard for me on the frequency of . . . kc/s (or Mc/s) (from . . . to . . . hours).
QSD	Is my keying defective?	Your keying is defective.	QTX	Will you keep your station open for further communication with me until further notice (or until . . . hours)?	I will keep my station open for further communication with you until further notice (or until . . . hours).
QSG	Shall I send . . . telegrams at a time?	Send . . . telegrams at a time.	QUA	Have you news of . . . (call sign)?	Here is news of . . . (call sign).
QSH	What is the charge to be collected per word to . . . including your internal telegraph charge?	The charge to be collected per word to . . . including my internal telegraph charge is . . . francs.	QUB	Can you give me, in the following order, information concerning: visibility, height of clouds, direction and velocity of ground wind at . . . (place of observation)?	Here is the information requested . . .
QSK	Can you hear me between your signals?	I can hear you between my signals.	QUC	What is the number (or other indication) of the last message you received from me [or from (call sign)]?	The number (or other indication) of the last message I received from you [or from . . . (call sign)] is . . .
QSL	Can you acknowledge receipt?	I am acknowledging receipt.	QUD	Have you received the urgency signal sent by . . . (call sign of mobile station)?	I have received the urgency signal sent by . . . (call sign of mobile station) at . . . hours.
QSM	Shall I repeat the last telegram which I sent you, or some previous telegram?	Repeat the last telegram which you sent me [or telegram(s) number(s) . . .].	QUF	Have you received the distress signal sent by . . . (call sign of mobile station)?	I have received the distress signal sent by . . . (call sign of mobile station) at . . . hours.
QSN	Did you hear me [or . . . (call sign)] on . . . kc/s (or Mc/s)?	I did hear you [or . . . (call sign)] on . . . kc/s (or Mc/s).	QUG	Will you be forced to alight (or land)?	I am forced to alight (or land immediately.
QSO	Can you communicate with . . . direct or by relay?	I can communicate with . . . direct (or by relay through . . .).	QUG	Will you be forced to alight (or land)?	I shall be forced to alight (or land) at . . . (position or place).
QSP	Will you relay to . . . free of charge?	I will relay to . . . free of charge.	QUH	Will you give me the present barometric pressure at sea level?	The present barometric pressure at sea level is . . . (units).
QSQ	Have you a doctor on board [or is . . . (name of person) on board]?	I have a doctor on board [or . . . name of person is on board].			
QSU	Shall I send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	Send or reply on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			
QSV	Shall I send a series of V's on this frequency [or . . . kc/s (or Mc/s)]?	Send a series of V's on this frequency [or . . . kc/s (or Mc/s)].			
QSW	Will you send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .)?	I am going to send on this frequency [or on . . . kc/s (or Mc/s)] (with emissions of class . . .).			

Z-CODE FOR POINT-TO-POINT SERVICE

25

Asterisk indicates U. S. Military Usage

NOTE: Numbers 1-5 following the "Z" signal mean:

1. Very slight
2. Slight
3. Moderate
4. Severe
5. Extreme

- A -
*ZAA YOU ARE NOT OBSERVING CIRCUIT DISCIPLINE.
*ZAB YOUR SPEED KEY IMPROPERLY ADJUSTED.
*ZAC Advise (Call sign of) frequency you are reading.
*ZAD Cease using speed key.
*ZAE Signal (1) Not understood (2) Not held.
*ZAF Unable to receive you, try via _____.
*ZAG Reroute the circuit by patching.
*ZAH Unable to relay. We file.
*ZAI Run (foxes, RY's, mk, etc.).
*ZAJ Have been unable to break you.
*ZAL Alter your wave-length.
*ZAM Closing down, due to _____.
*ZAN WE CAN RECEIVE ABSOLUTELY NOTHING.
*ZAO Transmit only msgs of above precedence.
*ZAP CAN'T UNDERSTAND VOICE. USE TELEGRAPH.
*ZAR ACKNOWLEDGE, PLEASE.
*ZAS Work (simplex, duplex, mux, sb).
*ZAT Last word received (sent) was _____.
*ZAU Revert to Automatic Relay.
*ZAV Rerun tapes run on _____ since _____.
*ZAZ Punching tape for transmission.
*ZBA Send blind until advised.
*ZBB Send on (kcs). Will confirm later.
*ZBC You are causing interference.

- B -
*ZBA Cause of delay is _____.
*ZBD Following was sent (time).
*ZBE Retransmit message _____ to _____.
*ZBG You are sending upper case.
*ZBH Make call before transmitting traffic.
*ZBI Listen for telephony.
*ZBL Do not use break-in.
*ZBM Put _____ (speed opr.) this frequency.
*ZBN Break and go ahead with New slip.
*ZBO Your tape reversed.
*ZBP I HAVE TRAFFIC.
*ZBQ (1) Characters indistinct (2) Spacing bad.
*ZBR When & on what frequency was message received.
*ZBS Break circuit. Retuning.
*ZBT Shall I send by (method).
*ZBU Blurring Signals (1) Dots heavy (2) Dots light.
*ZBT Count _____ as _____ groups.
*ZBU Report when in communication with _____.
*ZBV Answer on _____ mc.
*ZBW I shift (or ask _____) to (kcs).
*ZBY Pull Back your tape one Yard.

- C -
*ZCA Circuit Affected. Make readable signals.
*ZCB Circuit Broken. Signal unheard.
*ZCC Collate Code.
*ZCD Your Collation is Different.
*ZCF CHECK YOUR CENTER FREQUENCY, PLEASE.
*ZCI Circuit Interrupted. Running & available.
*ZCK Check Keying.
*ZCL TRANSMIT CALL LETTERS INTELLIGIBLY.
*ZCO Your Collation Omitted.
*ZCP Conditions Poor, increase to maximum.
*ZCR Using concentrator. Make warning signals.
*ZCS Cease Sending.
*ZCT Send Code Twice.
*ZCW Are you in direct Communication With _____?

- D -
*ZDA Hr. formal message, priority _____.
*ZDB Expedite reply to my _____.
*ZDC Diagnosing Circuit faults, will advise.
*ZDE Message undelivered. (1) Will keep trying (2) Advise disposal (3) Cancelling (4) Btr. ads. Message _____ undelivered.
*ZDE Frequency is Drifting to degree indicated, 1-5.
*ZDF Message _____ received by addressee (time).
*ZDG Accuracy of following doubtful.
*ZDH Your Dots are too Heavy (long).
*ZDL Your Dots are too Light (short).
*ZDM Your Dots Missing.
*ZDM This is a multiple-address message.
*ZDN Report disposal of message _____.
*ZDQ Message _____ relayed to _____ at _____ by _____.
*ZDS Msg just trans erroneous. Correct version is _____.
*ZDT Following Transmitters running Dual.
*ZDT Don't Transmit exercise messages until advised.
*ZDV Your Dots Varying length, please remedy.
*ZDV Private message received for _____. Advise.
*ZDY No private messages until ordered.

- E -
*ZEC Have you received message _____?
*ZED Experiencing Drop-outs, 1-5.
*ZEF We are Experiencing Fill-ins, 1-5.
*ZEG We are Experiencing Garbles, 1-5.
*ZEI Accuracy of heading doubtful.
*ZEK No answer required.
*ZEL This message is correction to _____.
*ZEN This message is classified.
*ZEP Parts marked ZEP coming later.
*ZEU Exercise (drill message).

- F -
*ZFA Failing Auto.
*ZFA Message intercepted or copied blind.
*ZFB SIGNALS ARE FADING BADLY.
*ZFB Pass this message to _____.
*ZFC Check your FSK shift, please.
*ZFD Depth of Fading is as indicated, 1-5.
*ZFD This message is a suspected duplicate.
*ZFF Advise when message received by _____.
*ZFH Message for (1) Action, (2) Info, (3) Comment.
*ZFI Reply to message? There is no reply.
*ZFK Revert to FSK.
*ZFO SIGNALS FADED OUT.
*ZFO Frequency shift your signal is _____ cps.
*ZFR Rapidity of Fading is as indicated, 1-5.
*ZFR Cancel transmission _____.
*ZFS Signals are Fading Slightly.

- G -
*ZGB Send (Answer) _____ signals.
*ZGF _____ signals Good For _____ wpm.
*ZGF Make call signs more distinctly.
*ZGP Please Give Priority.
*ZGS YOUR SIGNALS GETTING STRONGER.
*ZGW YOUR SIGNALS GETTING WEAKER.

- H -
*ZHA How are conditions for Auto reception?
*ZHC HOW ARE YOUR RECEIVING CONDITIONS?
*ZHM/x Harmonic radiation from transmitter.
*ZHS Send High Speed auto _____ wpm.
*ZHY We are Holding Your _____.

- I -
*ZIM Industrial or Medical interference, 1-5.
*ZIP Increase Power.
*ZIR You have strong Idle Radiation.
*ZIS Atmospheric Interference, 1-5.

- J -
*ZJF Frequency Jumping to degree indicated, 1-5.

- K -
*ZKA Who is controlling station? or I am _____.
*ZKB Permission necessary before transmitting msgs.
*ZKD Take control of net _____ or shall I _____.
*ZKE I (or _____) reports into Circuit (net).
*ZKF Station leaves net temporarily.
*ZKJ Closing down (until _____).
*ZKO REVERT TO ON/OFF KEYING.
*ZKQ Say when ready to resume.
*ZKS What Stations Keeping watch on _____?
*ZKW Keying Weight is _____ (percent).

- L -
*ZLB Give Long Breaks, please.
*ZLD We are getting Long Dash from you.
*ZLL Distorted LandLine control signals.
*ZLP Low (minimum) Power.
*ZLS WE ARE SUFFERING FROM LIGHTNING STORM.

- M -
*ZMG Magnetic activity.
*ZMO STAND BY MOMENT.
*ZMP MisPunch or Perforator failures.
*ZMQ Stand by for _____.
*ZMU/x Multipath making _____ mark bias.

- N -
*ZNB No Breaks, we send twice.
*ZNB Authentication is _____.
*ZNC NO COMMUNICATIONS WITH _____.
*ZNC All stations authenticate.
*ZND You are misusing authenticator.
*ZNG Receiving conditions No Good for code.
*ZNI NO CALL LETTERS (IDENTIFICATION) HEARD.
*ZNN ALL CLEAR OF TRAFFIC.
*ZNO Not On the air.
*ZNR Not Received.
*ZNS Here New Slip.

- O -
*ZOA Have checked (call-letters) _____ OK.
*ZOC Relay to your sub-stations.
*ZOD Observing _____ will transfer when better.
*ZOE Act as radio link between me and _____.
*ZOE Can you accept message? (or) Give me message.
*ZOF Relay this message.
*ZOG Transmit your message (give info.).
*ZOH What traffic have you On Hand?
*ZOK WE ARE RECEIVING OK.
*ZOK Relay this message via _____.
*ZOL OK. On Line.
*ZOM Mail delivery permissible.
*ZOR Transmit Only Reversals.
*ZOU Give instructions for routing traffic.
*ZOZ Obtain retransmission of message _____.

- P -
*ZPA Printer line Advance not received.
*ZPA Your speech distorted.
*ZPC Printer Carriage-return not received.
*ZPC Signals fading, 1-5.
*ZPE Punch Everything.
*ZPF Printer motor Fast.
*ZPO Send Plain Once.
*ZPP Punch Plain only.
*ZPR Rerun slip at Present Running.
*ZPS Printer motor Slow.
*ZPT Send Plain Twice.

- R -
*ZRA Reverse Auto tape.
*ZRA Mr frequency OK? Your frequency is _____.
*ZRB Delayed signal Bad, adjust receiver.
*ZRB Check your frequency on this circuit.
*ZRC Can you Receive Code?
*ZRC Shall I, or tune your transmitter to _____.
*ZRE Hear you best on (kcs).
*ZRF Send tuning signals on present frequency.
*ZRK Reversed Keying.
*ZRL Rerun slip before one now running.
*ZRM Please Remove Modulation from _____.
*ZRM I receive (usb, lsb, isb's) _____.
*ZRN ROUGH NOTE.
*ZRO ARE YOU RECEIVING OK?
*ZRR Run Reversals.
*ZRS Rerun message No. _____.
*ZRT Revert to Traffic.
*ZRY Run test slip, please.

- S -
*ZSF SEND FASTER.
*ZSH STATIC HEAVY HERE.
*ZSI/x Please furnish Signal Intensity.
*ZSM/x Microvolt input to receiver is _____.
*ZSN Give SINPO report on _____
S Signal strength.
I Interference.
N Noise.
P Propagation.
O Overall readability.

- T -
*ZSO Transmit Slips Once.
*ZSR YOUR SIGNALS STRONG & READABLE.
*ZSS Send Slower.
*ZST Transmit Slips Twice.
*ZSU YOUR SIGNALS ARE UNREADABLE.
*ZSV Your Speed Varying.

- U -
*ZTA Transmit by Auto.
*ZTH Transmit by Hand.
*ZTI Transmission temporarily Interrupted.

- V -
*ZUA Conditions Unsuitable for Automatic recording.
*ZUA Timing signal will be transmitted.
*ZUB WE HAVE BEEN UNABLE TO BREAK YOU.
*ZUC UNABLE TO COMPLY. WILL DO SO AT _____.
*ZUE Affirmative (Yes).
*ZUG Negative (No).
*ZUH Unable to comply.
*ZUJ Wait. Stand by.

- W -
*ZVB Varying Bias.
*ZVF Signals Varying in Frequency.
*ZVP Send V's Please.
*ZVR Pass at once to sub-stations.
*ZVS Signals Varying in intensity.

- X -
*ZWB Name of operator on watch.
*ZWC Wipers or Clicks here.
*ZWO SEND WORDS ONCE.
*ZWR YOUR SIGNALS WEAK BUT READABLE.
*ZWS Wavelength (frequency) is Swinging, 1-5.
*ZWT SEND WORDS TWICE.

- Y -
*ZYS WHAT IS YOUR SPEED OF TRANSMISSION?
*ZZF Incorrect.
*ZZG You are correct.
*ZZH TRY AGAIN.

MULTIPLEX
*ZYA Cease traffic; send A's on A channel.
*ZYC Cycling on ARQ, errors stored your end.
*ZYK Check Your Keying on channel _____.
*ZYM Change from single printer to Multiplex.
*ZYN Make bias Neutral.
*ZYP Change from multiplex to single Printer.
*ZYR Please put _____ on MUX revolutions.
*ZYT Check Your Thyratrons.
*ZYX/x Revert to MUX frames _____ channels.

RADIOGRAPH AND FACSIMILE
*ZXA Adjust to receive speeds _____.
*ZXC Pix _____ Conditionally accepted.
*ZXD Send Dashes, please.
*ZXF You are Floating Fast.
*ZXH Limits High, reduce _____ cycles.
*ZXJ You are Jumping out of phase.
*ZXL Is your synchronizing correct?
*ZXL Limits are Low, increase _____ cycles.
*ZXD Last run defaced due to _____.
*ZXP Go ahead with Pix.
*ZXS You are floating Slow.
*ZXV Your modulation is Varying.

Sources: Cable and Wireless Ltd.
U. S. Army Communications Manual SIG 439-2.
ACP-131 (A), Allied Comms. Procedures.
W3AFM

CENSUS OF AMATEUR RADIO LICENSES* in the U.S.A.

by classes, within states and call areas

Call Area	State	Novice	Tech- nician	Con- ditional	General	Advanced	Extra	Club	Military	Repeaters	State totals	YL's (Included in state totals)
#1	Conn.	1,104	857	392	1,632	1,222	443	105	7	77	5,839	298
	Maine	314	183	299	492	378	133	17	5	27	1,848	108
	Mass.	1,669	2,614	288	3,331	2,297	709	152	16	122	11,198	575
	N.H.	331	452	116	598	455	125	22	2	25	2,126	147
	R.I.	193	479	51	458	279	94	26	6	19	1,605	85
	Vermont	102	109	114	228	183	52	14	0	6	808	49
		3,713	4,694	1,260	6,739	4,814	1,556	336	36	276	23,424	1,262
#2	N.J.	1,727	3,067	185	3,779	3,056	962	288	5	131	13,200	517
	N.Y.	4,053	5,210	408	6,887	5,548	1,473	352	19	270	24,220	1,192
		5,780	8,277	593	10,666	8,604	2,435	640	24	401	37,420	1,709
#3	Delaware	146	151	25	238	162	55	10	3	10	800	36
	D.C.	45	40	15	125	108	59	14	5	2	413	11
	Md.	1,021	1,002	159	1,838	1,808	560	88	16	62	6,554	289
	Pa.	2,728	3,399	401	4,817	3,505	997	211	24	190	16,272	828
		3,940	4,592	600	7,018	5,583	1,671	323	48	264	24,039	1,164
#4	Alabama	940	1,019	371	1,211	962	228	35	11	86	4,863	347
	Florida	2,739	3,112	1,064	4,531	3,999	920	114	13	190	16,682	1,071
	Georgia	1,101	1,029	445	1,486	1,197	311	57	10	72	5,708	319
	Ky.	943	801	266	877	675	162	35	3	64	3,826	269
	N.C.	1,227	1,062	508	1,700	1,397	319	64	7	98	6,382	369
	S.C.	548	401	493	672	555	169	63	7	34	2,942	171
	Tenn.	1,342	1,493	345	1,442	1,379	298	57	5	108	6,469	390
	Va.	1,208	1,065	421	2,037	1,857	625	53	22	67	7,355	318
		10,048	9,982	3,913	13,956	12,021	3,032	478	78	719	54,227	3,254
#5	Ark.	445	482	224	603	544	143	36	2	44	2,523	174
	La.	743	660	357	1,075	906	231	59	8	47	4,086	242
	Miss.	454	381	206	542	469	99	8	3	46	2,208	120
	N.M.	254	300	301	485	496	168	15	5	33	2,057	124
	Okl.	772	864	250	1,019	994	211	42	9	61	4,222	291
	Texas	3,157	3,599	1,612	5,089	4,423	1,085	163	20	298	19,446	1,329
		5,825	6,286	2,950	8,813	7,832	1,937	323	47	529	34,542	2,280
#6	Calif.	5,775	9,788	1,981	12,847	12,148	2,797	593	55	679	46,663	2,597
#7	Ariz.	667	1,047	367	1,236	1,357	298	46	6	67	5,091	347
	Idaho	310	195	246	295	323	79	18	0	19	1,485	91
	Montana	254	72	298	263	260	72	19	0	16	1,254	80
	Nevada	150	197	229	301	273	89	20	2	34	1,295	78
	Oregon	960	698	483	1,573	1,303	299	61	6	53	5,436	355
	Utah	331	364	98	450	452	104	21	6	32	1,858	105
	Wash.	1,319	1,285	683	2,486	2,213	601	83	16	116	8,802	598
	Wyoming	123	67	137	156	123	34	10	1	16	667	46
		4,114	3,925	2,541	6,760	6,304	1,576	278	37	353	25,888	1,700
#8	Mich.	2,518	2,619	532	3,796	2,688	536	119	11	135	12,954	694
	Ohio	3,739	5,043	351	5,077	3,589	747	209	9	244	19,008	1,085
	W.Va.	656	438	92	633	406	116	22	5	36	2,404	163
		6,913	8,100	975	9,506	6,683	1,399	350	25	415	34,366	1,942
#9	Illinois	2,844	3,608	837	4,589	3,408	770	262	8	152	16,478	859
	Indiana	1,786	2,038	262	2,154	1,574	346	119	6	83	8,368	523
	Wisc.	1,171	921	435	1,707	1,372	279	77	6	85	6,053	289
		5,801	6,567	1,534	8,450	6,354	1,395	458	20	320	30,899	1,671
#10	Colo.	935	775	362	1,401	1,203	310	42	9	97	5,134	346
	Iowa	926	627	272	1,357	1,180	210	75	6	60	4,713	272
	Kansas	922	510	456	1,122	877	216	41	8	60	4,212	291
	Minn.	1,084	758	494	1,672	1,403	388	86	2	68	5,955	265
	Mo.	1,362	1,120	461	1,924	1,560	400	100	6	89	7,022	428
	Nebr.	528	380	265	722	600	92	38	3	37	2,665	159
	N.D.	190	39	253	191	147	26	11	1	10	868	58
	S.D.	222	94	138	259	232	51	15	1	20	1,032	88
		6,169	4,303	2,701	8,648	7,202	1,693	408	36	441	31,601	1,907
KH6	Hawaii	215	189	128	434	468	131	21	24	16	1,626	71
KL7	Alaska	247	122	94	384	328	108	11	35	15	1,344	115
KP4	Puerto Rico	254	423	41	231	236	64	13	7	18	1,287	57

Grand total

50 states, D.C.

and Puerto Rico 58,794 67,248 19,311 94,452 78,577 19,794 4,232 472 4,446 347,326 19,729

* From the 1978 Radio Amateur Callbook.

A4	Royal Oman ARS QSL Bureau, Box 981, Muscat, Sultanate of Oman, Arabia	KA	FEARL-M, C/O Sam Fleming, GARH-ID-GS-M, APO San Francisco 96343	VP9	Radio Society of Bermuda, Box 275, Hamilton 5, Bermuda
AX9	Amateur Radio Association Bahrain, Box 472, Awali, Bahrain, Arabian Gulf	KA6-KR6	Radio Society of Okinawa, Box 653, FPO Seattle 96773	VQ9	QSL Bureau, C/O MARS Station, NCS Diego Garcia, FPO San Francisco 96685
AP	Pakistan Amateur Radio Society, QSL Bureau, Box 65, Lahore, West Pakistan	KC4US	Via Com Nav Supp for Antarctica, Code 20/Communications, FPO San Francisco 96601	VS6	Cards for Members ONLY Via Hong Kong Amateur Radio Transmitting Soc, Box 541, Hong Kong
BV2	China Radio Association, Box 101, Taipei, Taiwan 100, Republic of China	KG4	GARC, Box 73, FPO New York 09593	VU	Amateur Radio Society of India, Box 534, New Delhi 1, India or Via Calcutta ARL, 17 Woodlands, 8/7 Allipore Rd, Calcutta 700027, India
CE	Radio Club of Chile, Box 13630, Correo 15, Santiago, Chile or Federacion de Clubes de Radioaficionados de Chile, Box 72, Valparaiso, Chile	KG6	Marianas Islands, Except Guam, Send Cards Direct	W-K-N1	Foreign Stations Only Via Hampden County A R Assn, Box 215, Forest Park, Htn, Springfield, Mass 01108
CM-CO	Federacion de Radioaficionados de Cuba, Box 1, Havana, Cuba	KG6	Guam ONLY, Via Box 445, Agana, Guam, Mariana Is	W-K-N2	Foreign Stations Only Via Jesse Bieberman, W3KT, Haledon, New Jersey 07508
CM8-CO8	QSL Bureau, Box 5, Santiago, Cuba	KL7	Alaska QSL Bureau, 4304 Garfield St, Anchorage, Alaska 99503	W-K-N3	Foreign Stations Only Via Jesse Bieberman, W3KT, Haledon, New Jersey 07508
CN	ARRAM, Box 299, Rabat, Morocco	KM6	KM6BI, Box 43, FPO San Francisco 96614	W-K-N4	Foreign Stations Only Via National Capitol DX Assn, Box DX, Boyce, Virginia 22620
CP	Radio Club Boliviano, Box 2111, La Paz, Bolivia	KP4	Puerto Rico Club de Puerto Rico, Box 1061, San Juan, Puerto Rico 00902	WA-WB4	Foreign Stations Only Via Sterling Park ARC, Box 599, Sterling, Virginia 22170
CP5	QSL Bureau, Box 1900, Cochabamba, Bolivia	KS6	Larry Gandy, KS6DV	W-K-N5	Foreign Stations Only Via ARRL W5 QSL Bureau, Box 1690, Sherman, Texas 75090
CP8	QSL Bureau, Box 393, Santa Cruz, Bolivia	KX6	Graciano Belardo, KV4CF	W-K-N6	Foreign Stations Only Via ARRL Sixth (6th) District QSL Bureau, 2814 Empire Av, Burbank, Calif 91504
CR9	Cards for Members Only Via Hong Kong Amateur Radio Transmitting Society, Box 541, Hong Kong	KZ5	Kwajalein Amateur Radio Club, KX6BU	W-K-N7	Foreign Stations Only Via Willamette Valley DX Club, Box 555, Portland, Oregon 97207
CT	Cards for Members ONLY Via REP - IARU Member-Rua D Pedro V-7-4, Lisbon 2, Portugal	LA-LJ	or Eniwetok ARC, KX6BQ	W-K-N8	Foreign Stations Only Via W8TO, Columbus A R Assn, Radio RM, 280 E Broad St, Columbus, Ohio 43215
CT2	r r V3 Associacao de Radioamadores Portugueses, Box 446, Porto, Portugal	LZ	KZ5 QSL Bureau, Box 407, Balboa, Canal Zone	W-K-N9	Foreign Stations Only Via Northern Illinois DX Assn, Box 519, Elmhurst, Illinois 60126
CT3	Associacao dos Radioamadores dos Acores, Box 602, Ponta Delgada, Sao Miguel Island, Azores	M1	Geom Mario Graziani, M1B	W-K-N2	Foreign Stations Only Via AK-SAR-BEN RC Inc, Box 291, Omaha, Nebraska 68101
CTX	Associacao dos Radioamadores da Madeira, Box 358, Funchal, Madeira Is	OA	RCP, Radio Club of Peru, Box 538, Lima, Peru	XE	IARU-LMRE, Box 907, Mexico 1, DF, Mexico
CTX	Radio Club of Uruguay, Box 37, Montevideo, Uruguay	OE	RAL QSL Bureau, Box 8888, Beirut, Lebanon	XZ	or Via ARARM QSL Bureau, Box 53, Mexico 1, DF, Mexico
C21	Nauru Amateur Radio Club, Box 29, Nauru	OH	OE VSV QSL Bureau, Box 999, A-1014 Vienna, Austria	YA	BARF, C/O Zay Wee, XZ2SY, 9 Fifth Mile, Kaba Aye Pagoda Rd, Yankin, Post Office, Klangon, Burma
C6A	Bahamas Amateur Radio Society, Box 6004, Nassau, Bahamas Is	OK-OL	SRAL QSL Bureau, Box 306, SF-00101 Helsinki 10, Finland	YB1	Wolfgang Renner, DK5AR
DA-DL	DARC Amateurfunk Zentrum, Lindenallee 6, Box 1155, D-3501 Baunatal 1, German Federal Republic	ON	Central Radio Club, Box 69, 11327 Praha 1, Czechoslovakia	YB2	QSL Bureau, Box 314, Bandung, Indonesia
DM	Fed Rep of West Germany	OR	UBA, Box 634, B-1000 Brussels 1, Belgium	YB3	Central Java Northern Area Via QSL Bureau, Box 88, Semarang, Indonesia
DU	DM QSL Bureau, Box 30, Berlin 55, East German Democratic Republic	OR3-KZ	or UBRCC, Box 634, B-1000 Brussels 1, Belgium	YB6	Central Java Southern Area Via QSL Bureau, Box 73, Solo, Indonesia
D2A	PARA QSL Bureau, Box 4083, Manila, Philippines	OX4	EDR QSL Bureau, Ingstrup, DK-9480 Løkken, Denmark	YB7-2	QSL Bureau, Box 59, Surabaya, Indonesia
D4	LARA, Box 484, Luanda, Angola, Africa	OY	OX4AA-ZZ Via MARS Director, XP1AA, APO New York 09211	YK	Johannes Titeler, YB4
EA	LARCIV, Box 145, Mindelo, Republic of Cape Verde	PA-PI	OX5AA-ZZ Via MARS Director, XP1AA, APO New York 09203	YK	ORARI QSL Bureau, Box 2761, Jakarta, Indonesia
EA1	URE, Union de Radioaficionados Espanoles, Box 220, Madrid 4, Spain	PJ	Foroyorsk Amateur Radio, Box 184, DK-3800 Torshavn, Faeroe Is	YK	QSL Bureau, Box 35, Damascus, Syria
EA4	URE Estacion Oficial de la URE, Hortaleza 2, Madrid 4, Spain	PT-PY	Dutch QSL Bureau, Box 400, Rotterdam 3005, Netherlands	YK	Mike Murciano, YN1MO/W4, Box 340902, Coral Gables, Florida 33134
EL	IRTS QSL Bureau, Irish Radio Transmitters Society - IARU Member, Box 462, Dublin 9, Ireland	P29	VERONA QSL Bureau, Box 383, Willemstad, Curacao	YK	The Central Radio Club, Box 1395, Bucuresti 5, Romania
EL3	or Via Amateur Radio Society of Ireland, Box 73, Athlone, Ireland	SJ-SM	Netherlands Antilles Cards for Aruba ONLY - Aruba Amateur Radio Club, Box 273, San Nicola, Aruba, Netherlands Antilles	YO	Members Only - CRAS, Box 517, San Salvador, El Salvador
ET	Liberian Radio Amateur Association, Box 1477, Monrovia, Liberia	SP	LABRE/DF, Box 07-0004, 7000 Brasilia, DF, Brasil	YU	SRJ, Box 48, 11001 Belgrade, Yugoslavia
ET3	ET3TRC Telecoms ARC, Box 1047, Addis Ababa, Ethiopia	SV	VRAS, QSL Manager, Box 566, Paramaribo, Surinam	YU	SRS, Box 64, 11001 Belgrade, Yugoslavia
F8B,FC,FM7,FP8,FY7	REF QSL Service, 2 Square Trudaine, 75009 Paris, France	SU	QSL Bureau, Box 204, Port Moresby, Papua New Guinea	YU	SH, Dalmatinska 12, 41000 Zagreb, Yugoslavia
FG7	or Via URC, Box 435-01, 75025 Paris Cedex 1, France	SV2	SSA, Ostmarksg 43, S-12342 Farsta, Sweden	YU3	ZRS, Box 180, 61001 Ljubljana, Yugoslavia
FG7	Radio Club Guadeloupe, Box 387, 97110 Pointe-A-Pitre, Guadeloupe, West Indies	S79	PZK QSL Bureau, skrytko pocziowa 320,00950 Warszawa, Poland	YU4	SR BIH, Box 61, 71001 Sarajevo, Yugoslavia
FK8	ARANC, Box 3956, Noumea, New Caledonia	TA-TC	SU11M or Box 840, Cairo, Egypt	YU5	SRM, Box 14, 91001 Skopje, Yugoslavia
F08	Radio Club Oceanic, Box 374, Papeete, Tahiti	TF	Mediteranean SV QSL Bureau, Box 564, Athens, Greece	YU5	IARU Bureau, Radio Club Venezolana, Box 2285, Caracas, DF, Venezuela
FY7	Radio Club de Guyane, Box 508, 97300 Cayenne, French Guiana	TG	or Via SV QSL Bureau, NARU, Box 1442, Athens 20, Greece	YU5	or ARV QSL Bureau, Box 3636, Caracas, DF, Venezuela
G	RSGB, Radio Society of Great Britain, C/O E G Allen, G3DRN, 30 Bodnant Gdns, London SW20 0UD, Great Britain	TU2	QSL Bureau, C/O SV F WY, APO New York 09223	ZB2	Gibraltar ARS, Box 292, Gibraltar
GD	Cards for Members Only May Be Sent Via USKA QSL Bureau, Box 9, CH 4900 Langenthal, BE, Switzerland	U	Seychelles Amateur Radio Club, Box 7388, Mahe, Seychelles	ZC4	Joint Signal Board Hdqtrs, British Forces Cyprus, BFPO 53, London GPO, England
GI	1 Grove Rd, Lydney, Gloucestershire GL15 5JE, Great Britain	VE	Turk Radio Amatortieri Cemiyeti, Box 699, Karakoy, Istanbul, Turkey	ZD7	W R Stevens, ZD7SD
GI	W P Waid, GD3GQX	VE1	IRA, Islenskir Radio Amatort, Box 1058, Reykjavik, Iceland	ZD8	Dave Oswald, ZD8D
GD	R R Parsons, G13HXV	VE2	American Amateurs ONLY Via Keflavik Amateur Radio Organization, Box 44, FPO New York 06571	ZE	RSR QSL Manager, Box 2377, Salisbury, Rhodesia
GM	L D Woolf, GJ8AAZ	VE3	CRAG, Box 115, Guatemala City, Guatemala	ZK1	Cards Addressed to Cayman Is ONLY May Be Sent Via ZF1AK
GJ	D R Macadie, G4GMD	VE4	Radio Club of Costa Rica, Box 2412, San Jose, Costa Rica	ZL	QSL Bureau, Radio Station Rarotonga, Rarotonga, Cook Is
GU	W E Butt, GU2FZC	VE5	QSL Bureau, Box 2239, Brazzaville, Republic of Congo	ZP	NZART, Box 40-212, Upper Hutt, New Zealand
GW	J L Reid, GW3ANU	VE6	ARAI, Box 20036, Abidjan, Ivory Coast	ZR-ZS	Radio Club Paraguay, Casilla de Correo 512, Asuncion, Paraguay
HA-HG	HSRL, Box 214, 1050 Budapest, Hungary	VE7	Central Radio Club, Box 88, Moscow, Russia	3A2	For Members ONLY - SARL, Box 3037, Capetown 8000, Cape Province, South Africa
HB,HB2	Cards for Members Only May Be Sent Via USKA QSL Bureau, Box 9, CH 4900 Langenthal, BE, Switzerland	VE8	ARRL Central QSL Bureau of Canada, Box 663, Halifax, Nova Scotia B3J 2T3, Canada	3A2	Pierre Anderhalt, 3A2CN
HC	Guayaquil Radio Club - IARU Member - Box 5757, Guayaquil, Ecuador	VK1	L J Fader, VE1FO	3B6-9	or Director Generale des Telecoms, 16 Blvd de Suisse, Monte Carlo, Monaco
HC1	Quito Radio Club, Box 289, Quito, Ecuador	VK2	A G Daemen, VE2UJ	3D2	Paul Caboché, 3B8AD
HCS	Cuenca Radio Club, Box 307, Cuenca, Ecuador	VK3	Ontario Trilliums, VE3TOT	3D6	QSL Bureau, Box 184, Suva, Fiji Islands
HK	Radio Club Dominicano, Box 1157, Santo Domingo, DN, Dominican Republic, West Indies	VK4	W A Stunden, VE4BJ	457	Radio Society of Swaziland, Box 21, Ezulwini, Swaziland
HK2	Liga Colombiana de Radioaficionados - IARU Member, Box 584, Bogota, Colombia	VK5	L Lloyd Jones, VE5J1	4X4-4Z4	Radio Society of Sri Lanka, QSL Manager, Box 907, Colombo, Sri Lanka
HL9	or Via Radio Club de Antioquia, Box 2500, Medellin, Colombia	VK6	G D Hooton, VE5AGV	5A	Shalom Baculi, 4Z4BS, IARC QSL Bureau Manager, Box 10191, Tel-Aviv 61290, Israel
HL9	or Via Assn de Radio Experimentadores Aficionados, Box 51327, Barranquilla, Colombia	VK7	Howard Martin, VE7AFY	5B4	QSL Bureau, Box 372, Tripoli, Libya
HM	QSL Manager, Salomon Tesone, HK2CLS	VK8	A Sturko, VE8NS	5N2	Cyprus Amateur Radio Society, Box 1267, Limassol, Cyprus
HP	or Via LCRA, Box 584, Bogota, Colombia	VK9-0-SWL	Yukon Territory ONLY Via Yukon AR Assn, Box 4597, Whitehorse, Yukon Territory Y1A 2R8, Canada	5W1	Nigerian Amateur Radio Society, Box 2873, Lagos, Nigeria
HP3	All HL9 Stations - Address with Call Letters and Name, APO San Francisco 96301	VO1 & 2	Canberra Radio Society, VK1ACA, C/O QSL Officer, Box 1173, Canberra City 2601, ACT, Australia	5Z4	Western Samoa RC, QSL Bureau-Secretary, Box 1069, Apia, Western Samoa
HR	Liga Panamena Radioaficionados - IARU Member, Box 175, Panama 9A, Republic of Panama	VP2A	WIA Hunter Branch, QSL Officer, Box 134, Charlestown 2290, NSW, Australia	60	RSEA QSL Bureau, Box 45681, Nairobi, Kenya
HR2	or Radio Club de Antioquia, Box 2500, Medellin, Colombia	VP2D	QSL Bureau, E Trebilcock, 340 Gillies St, Thornbury 3071, Victoria, Australia	6W8	Via Box 397, Mogadiscio, Somali Republic
HR5	Box 51327, Barranquilla, Colombia	VP2G	QSL Officer, Box 638, GPO, Brisbane 4001, Queensland, Australia	6Y5	REF or ARAS, Box 971, Dakar, Senegal
HS	QSL Manager, Salomon Tesone, HK2CLS	VP2L	QSL Bureau, C/O George Luxon, 203 Belair Rd, Torrens Park 5022, SA, Australia	7Q7	Jamaica Amateur Radio Assn, Jamaica Red Cross, 76 Arnold St, Kingston 5, Jamaica, West Indies
I, IW	or Via LCRA, Box 584, Bogota, Colombia	VP2S	QSL Bureau, C/O J Rumble, VK6RU, Box F319, GPO Perth 6001, West Australia, Australia	7X	H Y Bvumbwe, 7Q7AE
IC8	APO United States Forces Korea, OAC OFS, J-6, APO San Francisco 96301	VP8	QSL Bureau, Box 371D, GPO, Hobart 7001, Tasmania, Australia	8P6	ARA QSL Service, Box 2, Alger, Algeria
JA-JR	KARL, Central Box 162, Seoul 100-00, Korea	VP2G	QSL Bureau, Box 1418, Darwin 5794, Northern Territory, Australia	8Q6	Radio Society of Barbados, Box 814E, Bridgetown, Barbados, Windward Is
JT	Liga Panamena Radioaficionados - IARU Member, Box 175, Panama 9A, Republic of Panama	VP2L	QSL Bureau, Box 1418, Darwin 5794, Northern Territory, Australia	8R1	Barbados, Windward Is
JW-JX	or Radio Club de Antioquia, Box 2500, Medellin, Colombia	VP8	QSL Bureau, Box 1418, Darwin 5794, Northern Territory, Australia	9G1	Ivan Gouveia, 8R1AG
JY	Esteban D Mackay, HP3ML	VO1 & 2	QSL Bureau, Box 1418, Darwin 5794, Northern Territory, Australia	9H1-5	Cards For Members ONLY, Ghana Amateur Radio Society, Box 3773, Accra, Ghana
	Radio Club Tegucigalpa, Box 149-C, Tegucigalpa, DC, Honduras	VP2A	ARRL Central QSL Bureau of Canada, Box 663, Halifax, Nova Scotia B3J 2T3, Canada	9H4	MARL, Box 575, Valletta, Malta
	QSL Bureau, Radio Club de Honduras, Box 273, San Pedro Sula, Cortes, Honduras	VP2D	or Via Bill Coffen, VO1KM	9I-9J	Eric Rogers, 9H4G
	NOE L Cruz, HR5NL	VP2G	Antigua - Gerald Price, VP2AC	9K2	Radio Society of Zambia, Box 332, Kitwe, Zambia
	or Via Jesus Mauricio Zacapa, HR1JMZ	VP2L	Dominica - Austin L Harris, VP2DAJ	9L1	Nasir H Khan, 9K2AN
	RAST QSL Bureau, Box 2008, C/O GPO, Bangkok, Thailand	VP8	Grenada - Fred W Pressey, VP2GBL	9M2.6.8	Sierra Leone ARS, 9L1SL, Box 16, Freetown, Sierra Leone
	ARI, V Scariatti 31, 20124 Milano, Italy		St Lucia - Clement Bobb, VP2LCT	9Q5	MARTS, Box 777, Kuala Lumpur, Malaysia
	Cards for Capri Island Via Box 18, 80073 Capri, Italy		St Vincent - Via QSL Bureau, Box 142, St Vincent, Windward Is	9U5	UZRA, QSL Bureau, Box 1459, Kinshasa, Republic of Zaire
	Cards for Ischia Island Via Box 41, 80077 Ischia, Napoli, Italy		Cards for Falkland Is & South Georgia Should Be Sent Direct ONLY. Cards for Falkland Island Stations NOT Listed May Be Sent Via VP8ON	9Y4	BARC QSL Bureau, ON5TO, 8 Boterkeeweg, B-8200 Brussels, Belgium
	JARL, Box 377, Tokyo 100-91, Japan		Falkland Islands - For Onward Shipment		SARTS, Box 2728, Republic of Singapore 1
	Radio Club JT1KAA, Box 639, Ulan Bator, Mongolia				RAR QSL Bureau, Box 663, Kigali, Republic of Rwanda
	NRRL, Box 21, Refstad, Oslo 5, Norway				Radio Society of Sri Lanka, Box 907, Colombo, Sri Lanka
	Royal Jordanian RAS, Box 2353, Amman, Jordan				Port-Of-Spain, Trinidad

TABLE OF ALLOCATION OF INTERNATIONAL CALL SIGN SERIES

As issued by the International Telecommunication Union

AAA-ALZ	UNITED STATES OF AMERICA	TAA-TCZ	TURKEY	5AA-5AZ	LIBYA
AMA-ADZ	SPAIN	TDA-TDZ	GUATEMALA	5BA-5BZ	CYPRUS
APA-ASZ	PAKISTAN	TEA-TEZ	COSTA RICA	5CA-5GZ	MOROCCO
ATA-AWZ	INDIA	TFA-TFZ	ICELAND	5HA-5IZ	TANZANIA
AXA-AXZ	AUSTRALIA	TGA-TGZ	GUATEMALA	5JA-5KZ	COLOMBIA
AYA-AZZ	ARGENTINA	THA-THZ	FRANCE	5LA-5MZ	LIBERIA
		TIA-TIZ	COSTA RICA	5NA-5OZ	NIGERIA
BAA-BZZ	CHINA	TJA-TJZ	CAMEROON	5PA-5QZ	DENMARK
		TKA-TKZ	FRANCE	5RA-5SZ	MADAGASCAR
CAA-CEZ	CHILE	TLA-TLZ	CENTRAL AFRICAN REPUBLIC	5TA-5TZ	MAURITANIA
CFA-CKZ	CANADA	TMA-TMZ	FRANCE	5UA-5UZ	NIGER
CLA-CMZ	CUBA	TNA-TNZ	CONGO	5VA-5VZ	TOGO
CNA-CNZ	MOROCCO	TQA-TQZ	FRANCE	5WA-5WZ	WESTERN SAMOA
COA-COZ	CUBA	TRA-TRZ	GABON	5XA-5XZ	UGANDA
CPA-CPZ	BOLIVIA	TSA-TSZ	TUNISIA	5YA-5ZZ	KENYA
CQA-CRZ	PORTUGAL	TTA-TTZ	CHAD		
CSA-CUZ	PORTUGAL	TUA-TUZ	IVORY COAST	6AA-6BZ	EGYPT
CVA-CXZ	URUGUAY	TVA-TXZ	FRANCE	6CA-6CZ	SYRIA
CYA-CZZ	CANADA	TYA-TYZ	BENIN	6DA-6JZ	MEXICO
		TZA-TZZ	MALI	6KA-6NZ	KOREA
DAA-DTZ	GERMANY			6OA-6OZ	SOMALI
DUA-DZZ	PHILIPPINES	UAA-UQZ	UNION OF SOVIET SOCIALIST REP.	6PA-6SZ	PAKISTAN
		URA-UTZ	UKRAINIAN SOVIET SOCIALIST REP.	6TA-6UZ	SUDAN
		UUA-UZZ	UNION OF SOVIET SOCIALIST REP.	6VA-6WZ	SENEGAL
EAA-EHZ	SPAIN	VAA-VGZ	CANADA	6XA-6XZ	MADAGASCAR
EIA-EJZ	IRELAND	VHA-VNZ	AUSTRALIA	6YA-6YZ	JAMAICA
EKA-EKZ	UNION OF SOVIET SOCIALIST REP.	VQA-VQZ	CANADA	6ZA-6ZZ	LIBERIA
ELA-ELZ	LIBERIA	VPA-VSZ	GREAT BRITAIN & NO IRELAND		
EMA-EOZ	UNION OF SOVIET SOCIALIST REP.	VTA-VWZ	INDIA	7AA-7IZ	INDONESIA
EPA-EQZ	IRAN	VXA-VYZ	CANADA	7JA-7NZ	JAPAN
ERA-ERZ	UNION OF SOVIET SOCIALIST REP.	VZA-VZZ	AUSTRALIA	7OA-7OZ	YEMEN
ESA-ESZ	ESTONIA			7PA-7PZ	LESOTHO
ETA-ETZ	ETHIOPIA			7QA-7QZ	MALAWI
EUA-EWZ	BYELORUSSIAN SSR			7RA-7RZ	ALGERIA
EZA-EZZ	UNION OF SOVIET SOCIALIST REP.			7SA-7SZ	SWEDEN
				7TA-7YZ	ALGERIA
FAA-FZZ	FRANCE	XAA-XIZ	MEXICO	7ZA-7ZZ	SAUDI ARABIA
		XJA-XOZ	CANADA		
GAA-GZZ	GREAT BRITAIN & NO IRELAND	XPA-XPZ	DENMARK	8AA-8IZ	INDONESIA
		XQA-XRZ	CHILE	8JA-8NZ	JAPAN
HAA-HAZ	HUNGARY	XSA-XSZ	CHINA	8OA-8OZ	BOTSWANA
HBA-HBZ	SWITZERLAND	XTA-XTZ	UPPER VOLTA	8PA-8PZ	BARBADOS
HCA-HDZ	ECUADOR	XUA-XUZ	CAMBODIA	8QA-8QZ	MALEDIVE IS
HEA-HEZ	SWITZERLAND	XVA-XVZ	VIET NAM	8RA-8RZ	GUYANA
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HUA-HUZ	EL SALVADOR	YNA-YNZ	NICARAGUA	9LA-9LZ	SIERRA LEONE
HVA-HVZ	VATICAN CITY STATE	YOA-YRZ	ROMANIA	9MA-9MZ	MALAYSIA
HWA-HYZ	FRANCE	YSA-YSZ	EL SALVADOR	9NA-9NZ	NEPAL
HZA-HZZ	SAUDI ARABIA	YTA-YUZ	YUGOSLAVIA	9OA-9TZ	ZAIRE
		YVA-YYZ	VENEZUELA	9UA-9UZ	BURUNDI
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				9WA-9WZ	MALAYSIA
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JZA-JZZ	INDONESIA	ZPA-ZPZ	PARAGUAY	A3A-A3Z	TONGA
		ZQA-ZQZ	GREAT BRITAIN & NO IRELAND	A4A-A4Z	OMAN
KAA-KZZ	UNITED STATES OF AMERICA	ZRA-ZUZ	SOUTH AFRICA - SW AFRICA	A5A-A5Z	BHUTAN
		ZVA-ZZZ	BRAZIL	A6A-A6Z	UNITED ARAB EMIRATES
LAA-LNZ	NORWAY			A7A-A7Z	QATAR
LOA-LWZ	ARGENTINA	2AA-2ZZ	GREAT BRITAIN & NO IRELAND	A8A-A8Z	LIBERIA
LXA-LXZ	LUXEMBOURG			A9A-A9Z	BAHRAIN
LYA-LYZ	LITHUANIA	3AA-3AZ	MONACO		
LZA-LZZ	BULGARIA	3BA-3BZ	MAURITIUS	C2A-C2Z	NAURU
		3CA-3CZ	EQUATORIAL GUINEA	C3A-C3Z	ANDORRA
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ODA-ODZ	LEBANON	3IA-3IZ	TUNISIA		
OEA-OEZ	AUSTRIA	3JA-3JZ	VIET NAM	D2A-D3Z	ANGOLA
OFA-OJZ	FINLAND	3KA-3KZ	GUINEA	D4A-D4Z	CAPE VERDE
OKA-OMZ	CZECHOSLOVAKIA	3YA-3YZ	NORWAY	D5A-D5Z	LIBERIA
ONA-OTZ	BELGIUM	3ZA-3ZZ	POLAND	D6A-D6Z	COMOROS
OUA-OZZ	DENMARK			D7A-D9Z	KOREA
PAA-PIZ	NETHERLANDS	4AA-4CZ	MEXICO		
PJA-PJZ	NETHERLANDS ANTILLES	4DA-4IZ	PHILIPPINES	H3A-H3Z	PANAMA
PKA-POZ	INDONESIA	4JA-4LZ	UNION OF SOVIET SOCIALIST REP.	H4A-H4Z	SOLOMON IS
PPA-PYZ	BRAZIL	4MA-4MZ	VENEZUELA		
PZA-PZZ	SURINAM	4NA-4OZ	YUGOSLAVIA	J3A-J3Z	GRENADA
		4PA-4SZ	CEYLON		
QAA-QZZ	SERVICE ABBREVIATIONS	4TA-4TZ	PERU	L2A-L9Z	ARGENTINA
		4UA-4UZ	UNITED NATIONS		
RAA-RZZ	UNION OF SOVIET SOCIALIST REP.	4VA-4VZ	HAITI	P2A-P2Z	PAPUA NEW GUINEA
		4WA-4WZ	YEMEN	P3A-P3Z	CYPRUS
SAA-SMZ	SWEDEN	4XA-4XZ	ISRAEL		
SNA-SRZ	POLAND	4YA-4YZ	INTL CIV AVIATION ORGANIZATION	S2A-S3Z	BANGLADESH
SSA-SSM	EGYPT	4ZA-4ZZ	ISRAEL	S6A-S6Z	SINGAPORE
SSN-STZ	SUDAN			S7A-S7Z	SEYHELLES
SUA-SUZ	EGYPT			S8A-S8Z	TRANSKEI
SVA-SZZ	GREECE			S9A-S9Z	SAD TOME & PRINCIPE

ENGRAVED NAMEPLATES

FOR YOUR DESK, DOOR, RIG AND YOU!

Your name and call letters, or office title, engraved on any one of these attractive, modern design, duo-color, laminated phenolic nameplates. An efficient, thoughtful and important item for your home or office.

FOR YOUR DESK

1" x 7"
2" x 8"

Select the satin smooth, walnut grained or jet black nameplate with white letters (up to 20 letters and numbers per line), mounted in satin gold or silver finish, anodized aluminum holder. Two sizes as illustrated above.

FOR YOUR DOOR or rig

1" x 4"
1" x 7"
2" x 8"

Nameplates in three sizes for your door or rig in walnut grained or jet black, with white letters. Up to 18 letters per line on the 1" x 4" plate. Up to 20 letters on the others. Each with special adhesive back for immediate installation. No tools needed.

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Handsome desk set with either jet black or walnut grained nameplate (white letters), mounted in satin gold or silver anodized aluminum holder. Up to 20 letters per line. Two standard ball point pens included. Rear compartment for business cards, pads, etc.

Call letters only

W9XYZ

LAPEL PIN (with safety catch)

Your call letters engraved on a duo-color plastic pin. Size 1/2" x 2". Available in white letters on black, blue or red background. Also black letters on white background. Up to 15 letters—1 line only.
Illustrated one-half size

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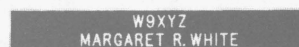
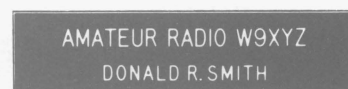
1 Line 2 Lines

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\$5.75 \$6.25

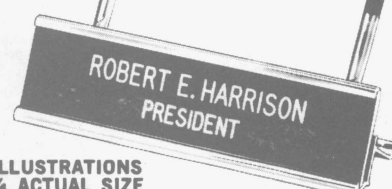
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\$3.50 \$4.00
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ON ANY NAMEPLATE



ILLUSTRATIONS
1/4 ACTUAL SIZE

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PRINT wording just as it is to appear on your nameplate or pin

Please print clearly
to avoid error

Total Amount \$ _____
Illinois residents
add 5% sales tax _____
Flat mailing charge 1.00
Amount enclosed \$ _____

Kind of Nameplate	Color of Nameplate	Line Arrangement. Check one if 2 lines	Size	Color of Holder if Desk or Exec. Set
☐ Desk	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large	☐ 1"x7" ☐ 2"x8"	☐ Gold ☐ Silver
☐ Door or rig	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large	☐ 1"x4" ☐ 1"x7" ☐ 2"x8"	
☐ Exec. Desk Set	☐ Walnut Grained ☐ Jet Black	☐ All letters same size ☐ Large letters over small ☐ Small letters over large		☐ Gold ☐ Silver
☐ Lapel Pin	☐ Jet Black ☐ White ☐ Red ☐ Blue			

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(May also be used as a tie-tac.)

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Tie Bar



Item 2-G, 20K gold plated Each \$8.00
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Charm

Item 4-G, 20K gold plated
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Each \$8.00



I am Pegasus

... according to legend, winged and with blazing hoofs, mane flying, crossed the heavens with such speed I caused the crash of lightning and the roar of thunder.

Of course, this is a myth, but what an exciting thought—to race across the heavens with the speed legend gave me. Naturally it's really impossible for me to have accomplished such a feat but not for you... a radio amateur.

You can reach the corners of the world... with a turn of a knob you can cross the heavens—the whole world is yours... adventure is yours.

We have much in common—my legend of adventure—your history of adventure, as part of amateur radio.

We join our past, present and future here, in this emblem.

A brand new, modern design, emblem for radio amateurs to display their own call letters. A truly beautiful emblem you will be proud to wear.

Each piece will be engraved with your call letters—to make it your very own. The quality and workmanship is guaranteed.

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Bracelet

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Item 5-G, 20K gold plated
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State

Zip Code

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Illinois residents add 5% sales tax _____

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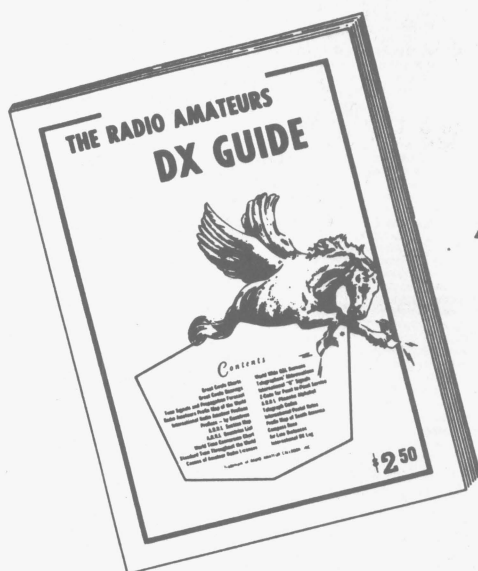
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WORLD MAP SHOWING RADIO AMATEUR PREFIXES — an outstanding map, 15" x 10".

GREAT CIRCLE MAP — centered on the center of the United States.

PREFIX MAP OF SOUTH AMERICA — showing the number or letter designating all sections and countries.

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GREAT CIRCLE BEARINGS IN THE UNITED STATES — between 39 large cities in the U.S.A. — a valuable aid for VHF work as well as handling traffic through QRM.

GREAT CIRCLE BEARINGS TO WORLD WIDE METROPOLITAN AREAS — exact bearings to the nearest degree from 39 cities in the U.S.A. to 39 metropolitan areas throughout the world.

TIME CONVERSION TABLE — determine the time in any time zone in the world. Also know whether it is today or tomorrow at the place heard or worked.

TIME THROUGHOUT THE WORLD — time zones of most countries. Explains the International Time Zone System.

POSTAL INFORMATION — rates for QSL cards, first class and airmail letters to foreign countries. Also the number of international reply coupons for the proper postage for a return airmail letter is shown for most countries.

ARRL COUNTRIES LIST — official list of ARRL DX contest and DXCC. Courtesy ARRL.

COMPASS ROSE — for that rotary beam indicator, graduated for 360 degrees. With white background and no print on the reverse side of the sheet.

PLUS THESE INTERESTING FEATURES — INTERNATIONAL "Q" SIGNALS; WORLD WIDE QSL BUREAUS; "Z" CODE FOR POINT-TO-POINT SERVICE; ARRL PHONETIC ALPHABET; TELEGRAPHERS ABBREVIATIONS; DX OPERATING CODE; TELEGRAPH CODES.

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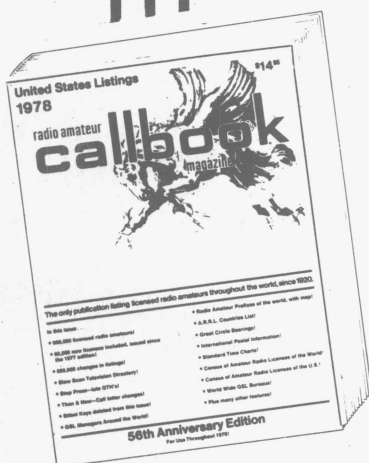
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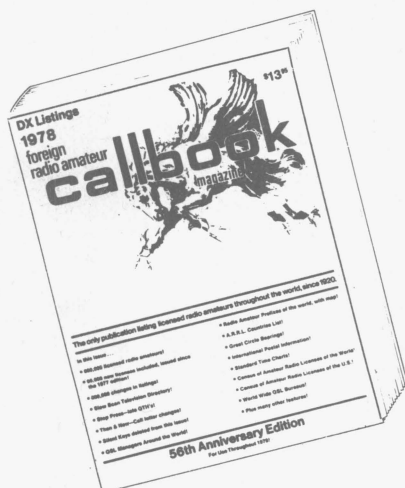
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